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Hon. P. McTague

ROYAL COMMISSION

ON

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EXHIBITS

VOLUME 122

Page 20213	line 22:	change "us" to "cost"
20219	13:	change "obtained" to "paid"
20224	10:	change "months" to "years"
20249	14:	change "deal" to "tool"
20250	7:	change "deal" to "tool"
20259	13:	change "standard" to "satisfactory"

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ROYAL COMMISSION ON TRANSPORTATION

Proceedings of hearings held in the Court Room, Board of Transport Commissioners Offices, Ottawa, Ontario, on the 21st day of November, 1960.

COMMISSION

Mr. M. A.	MacPherson, Q.C.	Chairman
Mr. H.	Anscomb	Member
Mr. A. H.	Balch	Member
Mr. R.	Gobeil	Member
Mr. H.A.	Mann	Member
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Mr. F.W.	Anderson	Secretary
Major N.	Lafrance	Assistant Secretary

Ottawa, Ontario,
Monday,
November 21, 1960.

--- Commissioner Gobeil not present ---

--- On commencing at 10:00 a.m.

THE CHAIRMAN: Order, please.

Gentlemen, we have been across Canada, and we have heard every Premier of Canada but one, and he was in hospital; but this is the first time we have two members of the House of Commons before us. Mr. Browne, I understand, is the witness and Mr. Drysdale is his counsel.

MR. DRYSDALE: That is right, sir.

J. FERGUSON BROWNE, called

DIRECT EXAMINATION BY MR. DRYSDALE:

Q. Mr. Chairman and gentlemen, might I first say we are very pleased to have the opportunity of appearing before you and in particular to have Mr. Browne present his views which he is doing in his capacity as an individual.

Mr. Chairman, I think first of all I would like to qualify Mr. Browne and give a little bit of his background and Mr. Browne will confirm the statements I make.

Mr. Browne has been associated with the trucking industry for some twenty-five years, and I

think, too, Mr. Chairman looking over the transcript of the evidence this is the first -- I was going to say the first practical witness, or somebody that has been intimately and actively associated with the trucking industry.

From 1935 to 1940 Mr. Browne was associated with the Wells Cartage Limited, a Vancouver trucking firm. From 1940 to 1946 he was overseas with the Royal Canadian Army Service Corps; and from 1946 to 1951, Mr. Browne had his own firm, Empire Cartage, which was a firm of some seven trucks.

From 1951 to the present time, Mr. Browne re-affiliated with the Wells Cartage Company in the capacity, first of all, as Traffic Manager, and subsequently he became a director and General Manager of this firm.

Wells Cartage does ninety per cent of its business locally in the Vancouver and has some 35 units.

Mr. Browne was elected as a Member of Parliament to Vancouver-Kingsway in 1958.

Wells Cartage firm is associated with the Automotive Transport Association of British Columbia which in turn is affiliated with the Canadian Trucking Association.

A. That is correct.

Q. Mr. Browne, I am advised, filed twenty-five copies of the brief with the Commission, I believe it was, October 24 and in addition mailed copies of the interested parties.

I would ask Mr. Browne if he would now read

his brief, and I believe he also has a preliminary statement he would like to make.

A. Mr. Chairman: Before I commence reading my brief, I want to thank you for the opportunity of presenting my views and to state briefly what I consider my status in appearing before the Royal Commission on Transportation. I am appearing as a member of Parliament of Canada and the views I express are those which in my opinion will best serve the national interest.

I would like to emphasize that these views are not presented as the views of the trucking industry, but represent my own thinking with the experience of twenty-five years in the trucking industry. I would also like to point out that the firm I am associated with does not necessarily endorse all or any of the views contained in this brief, nor am I in any way speaking on their behalf. In fact, in so far as I am aware, they do not stand to benefit from any of the policies that I have advocated in my brief.

Most of the views contained in my brief have been expressed at various times in the House of Commons and in committees of the House.

I have also introduced bills in the House, and purpose of which is to bring about legislative changes concerning transportation in Canada, however, before they could be brought before the House for debate, this Commission on transportation was appointed and I felt it would be preferable to place my views before the Commission first before proceeding

with them in the House.

I would like to introduce as exhibits Bills C-25 and C-29 which I first introduced in 1958 and which I have re-introduced at subsequent sessions.

--- EXHIBIT NO. 184: Bill C-25

--- EXHIBIT NO. 185: Bill C-29

The two bills that I am introducing as exhibits are dealt with later on in the brief; at least, the subject matter of the two bills, and I simply put them forward for your information.

Now, I would like to proceed with the reading of the brief.

1. The problems of Canadian transportation are important, complex and controversial. Therefore it is only natural to expect that they be approached from different points of view and that the areas of disagreement are wider than the areas of agreement. All this implies an obligation on the part of anyone appearing before this Commission to state clearly the fundamental principles on which his presentation is based.

2. The fundamental principles on which this submission is based are:

1. Belief in the efficiency of the competitive free enterprise system; and

2. Belief that progress must be

encouraged, and that the costs of changes imposed by new methods, new equipment and new patterns of consumption and production must be accepted as the necessary price.

3. There are few who would disagree with these principles but, on the other hand, many of those who theoretically agree with them are quite willing to advocate policies inconsistent with the belief in competitive enterprise and the encouragement of progress.

4. A clear statement of the basic principles is especially important today. Transportation is fast becoming a field of growing competition; it is also a field in which a very rapid rate of technological and marketing progress has brought about -- and is bringing about -- changes of such magnitude as to make it necessary to examine critically some of the views and policies which were generally accepted and non-controversial in the past.

5. This submission is focussed on the problems of the Canadian trucking industry. No apology is needed for this approach. Some of the basic changes which have occurred in the Canadian transportation scene have been brought about by the emergency of highway transport. These changes caused problems to other means of transport -- notably the railways -- but they also brought immeasurable benefits to shippers. Even if one agreed, in regard to transportation, that the solution of the railway

problem is the most urgent or immediate task facing the Dominion, -- and this is not the view with which I agree -- even then, one would have to consider the impact on the trucking industry of any solutions proposed.

6. There are two main classes of benefits which highway transport brought to the nation's consumers and producers:

1. Benefits of new service, i.e., greater variety of service and wider range of services and rates; and

2. Benefits of competition which, in an increasing number of cases, puts a ceiling on rates which can be charged by other means of transport, and, at the same time, forces the competing industry to improve the quality, or increase the range, of its services, when such policies are justified.

7. These benefits can only continue and be extended if the trucking industry continues to expand and if the independent trucking industry exists. The independence of the trucking industry is essential if benefits from competition are to be obtained -- seldom, if ever, will a subsidiary force its "mother-company" to make competitive adjustments.

The Changing Nature of the Trucking Industry.

8. Understanding of the basic changes of the trucking industry is essential in order to appreciate

the changes which this industry brought about in the transportation scene as a whole. These changes have been described at length in the submission presented on behalf of the trucking industry by its national organization. It is useful, however, to state briefly the main lines along which the industry developed and trace the implications of these developments on national transportation policies.

9. The most important lines of the industry's development can be summarized briefly under three headings:

1. Increase in the range of operations
2. Increase in the efficiency of highway operations, both as the actual carriage and the terminal handling are concerned; this, in turn, resulting in the shift of economic advantages between highway and railway transportation
3. Increase in specialization within the industry -- specialization of equipment, and of firms in different types of operation.

10. As the result of these changes, the trucking industry's competition has increased, affecting a greater range of commodities and longer haul traffic. At the same time, it is increasingly difficult to speak about an "average truck" or "average firm": in order to serve different sectors of the transportation market, the trucking industry, through a process of competitive adjustments, became diversified,

and today it may be more correct to say "trucking industries" than "trucking industry".

11. All sectors of the trucking industry are important but, for the purpose of this inquiry, the most important sectors are those which directly compete with the railway industry, and which are of national rather than local significance. These are the sectors where larger firms are more typical and where capital investment tends to be considerable. In fact, there is a necessary relationship between length of haul, capital investment and size of the firm; in order to provide long haul service with large and economic equipment, sizeable investments and large organization are necessary.

12. The changes which have taken place within the trucking industry have made traditional approaches to the problems of transportation obsolete. No longer can it be assumed that the independence of the industry cannot be affected by the acquisition of a few companies. No longer can the industry be assumed to have a local or regional character. The industry's operations affect all provinces and all regions of Canada.

13. The implication of these changes is this:

-- whether we want it or not, national transportation policy must take into account highway transportation, and a national policy for highway transportation is essential.

The Aims of National Highway Transport Policy.

14. National policy affecting highway transport must necessarily be a part of the national transportation policy. The transportation system of this country is so closely inter-related that no longer can we afford to have a number of unrelated separate policies for individual industries. The same guiding principles should be followed in our treatment of highway transportation, railways, commercial aviation or pipelines.

15. The first aim of the national transport policy should be preservation of the principle of freedom of choice as to the means of transport, as long as it is technically or economically possible. This means that possibilities of the establishment of a transportation monopoly should be watched carefully, and, if necessary, counteracted. Monopolies can be established either through purchases of competing firms, or through rate practices which lead to elimination of competition. The application of this principle requires national control over the acquisition of transportation firms by firms established in other transportation industries and also the right of one transportation industry to intervene in cases where the rates established by its competitor may lead to elimination or weakening of the competition.

16. The second important aim of transportation policy must be the encouragement of progress. In practice, it must mean that no

protection should be given to the established transport medium, either through a one-sided subsidy, or through preferential legislation. The word 'established' is stressed here because in practice it may be a sound developmental policy to encourage the growth of a new and promising industry. However, as soon as an industry has established itself and is capable of standing on its own feet no preferential treatment should be given to it to defend it against the new forms of competition.

17. Transportation assistance has -- and probably will -- be used as a means for the promotion of certain geographical regions, or for the achievement of national aims. Any such assistance program carried on through transport subsidies should take into account the development of all transportation industries.

18. How does the national highway transport policy fit into this framework?

19. If national transportation principles are to be applied to the field of highway transport than the following conditions must be met:

1. The impact of policies which affect highway transport must be considered in relation to the trucking industry;

2. The impact of the rate policies of the established forms of transportation on highway transport must be taken into account;

3. The legislative framework within which the trucking industry operates must be

adjusted to the present needs of the industry;

4. Any attempts to establish a monopoly in the competitive sector of the industry must be prevented.

20. Unfortunately, these conditions have been ignored, partly because the importance of highway transportation has not been fully recognized in the past. The recognition of the part this industry plays, and the drawing of practical conclusions from this recognition, would contribute towards the solution of national transportation problems.

Policies Affecting Highway Transportation.

21. Transportation industries have been consistently used as "instruments" of the economic unification of the country and assistance to certain regions of Canada. In practical terms, this policy principle was applied in practice in the following ways:

1. Subsidies -- either direct or through loans or guarantees -- for railway construction;

2. Grants on a Federal-Provincial cost-sharing basis towards construction of the Trans-Canada Highway;

3. Construction of the St. Lawrence Seaway, as well as other canals and waterways;

4. Construction of harbours, docks and wharves;

5. Construction of airports and aerodromes;

6. Subsidization of movement of certain railway freight ("bridge" subsidy, Maritime Freight Rates subsidy) or the same type of subsidization nationally (Freight Rates Reduction Act); in the same general category one must include meeting the deficits of the Canadian National Railways;

7. Deficits on the operation of certain harbours and wharves;

8. Deficits on the operation of airports and airways.

22. It may be noted that the assistance enumerated under headings 1 to 5 (;inclusive) has been of the nature of an investment in the general efficiency of our "national plant". Although some of it might have been misdirected, the results of these policies were of large and lasting benefit to Canada. In fact, it has been a traditional policy in this country to assist those transport developments which helped to unify Canada, or increased national prosperity, and it must be source of pride that most of the transport undertakings assisted became self-supporting, or are on the way to being self-supporting.

23. However, with growing complexities in the transportation field future investments in transport must be carefully planned not only from the point of view of direct benefits to the recipients, but also from the point of view of the general impact

on all the transportation media. Had this policy been consistently followed, the development of St. Lawrence Seaway would be co-ordinated with the construction of adequate facilities for further distribution of goods from harbours. For example, the increase in the importance of Lakehead as a St. Lawrence port must be matched with the establishment of satisfactory loading and unloading facilities for trucks, as well as highway improvements, so that the economic benefits of the harbour can be felt as widely as possible.

24. It would be most valuable if the Commission found it possible to include a co-ordinated planning of national transport investments -- investments by the federal government -- among its recommendations. Such co-ordination of investment policies in transport would have to take into account the interests and potential contribution of all means of transportation.

25. If other means of government assistance to transport industries are considered, they fall under a broad heading of subsidies. Some of the subsidies are aimed at assistance to certain regions of the country; some are of the "developmental nature"; being aimed at helping new and developing industries; some represent the costs of keeping declining or inherently unprofitable systems in operation; some are aimed at keeping certain transportation costs down.

26. Certainly, there is no subsidy which cannot be justified on some grounds and which would not bring benefits to somebody. The problem, however, is to establish clearly what we are trying to do, how much are we actually getting for our expenditure, and what is the net effect of the present systems on the transportation system of the country as a whole. In particular, it is important to consider whether subsidies now existing promote or harm the development of new transport services, or competition in transport. It must be remembered, first and always, that it is the competitive system of free enterprise which, in the long run, assured the shipper and consumer of a type of service which he requires at the lower cost possible. Therefore, a study of competitive effects of subsidies is essential, and where such competitive effects are adverse, suitable remedies must be introduced.

The Problem of Subsidies

27. Any subsidy program introduces a competitive dislocation. An industry receiving a subsidy is in a better competitive position than other transport agencies competing in the same traffic market. It follows, therefore, that a subsidy granted to one means of transport must retard the development of the competing transport industries. Furthermore, an operating subsidy is tied to a certain level of costs and operating standards, and therefore tends to grow with the increase in costs. But what

are the legitimate cost increases? Parallel with the rise of materials and with wage increases, new methods are introduced which tend to keep costs down. In efficient competitive industries everything is done to reduce costs in face of rising prices. If it is not done, a firm cannot survive. In a subsidized industry, the problem is much more complex. If today we decided to subsidize the railways so as to freeze all railway rates at a certain level, and if tomorrow railway wages go up by 10 per cent, what allowance should we make for that? Full allowance for railway cost increase; due to the rise in labour costs, or only partial allowance (since the increase in wage rates is -- partially, at least -- counter-balanced by the increase in productivity)? If so, who is to make the determination, the railway managements themselves, or some other body? If some outside agency is to determine the necessary level of a subsidy increase will it not assume some of the prerogatives of railway management? These are the problems of subsidies; problems which do not exist if the natural play of competitive forces is allowed.

28. Nevertheless, there are situations where subsidies are required to assist certain regions or industries, which, without subsidies, might find it difficult to continue producing in a competitive market.

29. In such cases the principles involved should

be clearly stated. It must be stated who is to be the benefactor of the subsidies. Furthermore, the subsidies must be organized in such a way as not to disturb the changing competitive balance between transport industries.

30. In practical terms the now outmoded policy of having one transportation industry as a chosen instrument must be discarded. It follows that any subsidy which is allocated to assist a particular class of shippers must be granted in such a way as to enable the subsidy benefactors to choose the transportation medium which suits their needs. In the case where the number of shippers is large and the number of carriers is limited the best way of meeting this requirement is by paying the subsidy to all the established competing carriers who, in turn, will reduce their rates by the percentage corresponding to the subsidy payment. Since competitive conditions can can be relied upon to keep the rates at a minimum, the subsidy payments would produce a genuine reduction of freight costs. In the case where the number of shippers is limited, the best way is to give the subsidy to the shipper directly, who will then allocate the subsidy monies in such a way as to assure maximum benefits. The first method is obviously applicable in the case of the Maritime shippers, the second in the case of grain movements, if it is decided that Maritime freight rate assistance is to be continued, in accord with the conditions of

Confederation, and if a subsidy on export grain movement is recommended.

31. On the other hand, a general 'blanket' subsidy granted to one means of transport -- railways -- in order to reduce all the rates, or even all the non-competitive rates, is difficult to justify. Its benefits are spread at random, and potential competitive complications are at their worst.

32. In theory, a blanket subsidy benefits long-haul shippers more than short-haul. In this way, it also retards the development of competitive on long-haul markets. One must be consistent; one cannot argue that the long-haul railway customer deserves a subsidy because the competition on long-haul movements is weak -- an argument less and less true with the growth of long distance trucking -- and, at the same time, subsidize railway movements which would further weaken this competition.

33. Furthermore a blanket railway subsidy affects adversely any possibility of combined rail-truck movements. Even if it is more economical to ship a particular commodity part way by truck, and part way by rail, by virtue of the subsidy the maximum railway haul will always be chosen. In this way, rationalization of the Canadian railway system is further postponed, and the need for a subsidy increased.

34. If the disadvantages of the areas of Canada which are located far from their markets or supply sources are to be diminished, the way to do it is

through an aggressive and planned program of cost-cutting investments, since by this method the source of the problem -- high costs of production or distribution -- is attacked and not its manifestation. In this way the basic problems are solved rather than their symptoms being buried under a growing burden on the taxpayer's pocket.

35. The most important point, however, is this: there is no better, and in the long run, no cheaper, solution to the problem of highrates, and/or inadequate service, than competition. Any policy which adversely affects competition leads to higher costs, and greater problems. Any policy which promotes competition leads to a better distribution of the benefits accruing from technical and economical progress.

Regulation

36. The reason for economic regulation in transportation is the protection of the long-term interests of the customer. This aim can only be achieved through the promotion of healthy, competitive carriers who can assure the continuity and quality of service the customer needs and expects, and the lowest possible rates consistent with fair returns to the suppliers of the service. If the continuity and the quality of service is to be protected, then the existence of carriers and their ability to bring into the service new and better equipment must be protected too. An intelligent and far-sighted policy of regulation is not inconsistent with the

promotion of competition. On the contrary, it enables the full benefits of competition be reaped by the creation of conditions under which the long-range interests of the public and of the carriers are protected, and where both the suppliers and the consumers of transportation services are able to plan ahead.

37. This general principle can be translated into the following practical tests against which any existing regulatory system can be judged:

1. Does it take into account the long range development trends of the industry, and does it enable the carriers and the public to plan ahead?
2. Does it strengthen the healthy competitive elements, i.e., does it encourage the growth of strong enterprises and protects the public against the possibilities of the creation of unwanted monopolies?
3. Is it consistent over time, across the country, and does it apply the same basic principles to all industries?

38. Even a very brief survey of the present regulatory framework affecting the transportation industries indicates that it falls short of meeting these tests.

39. Let us consider the trucking industry first.

40. The industry is regulated independently

by ten provincial boards, which in the case of interprovincial or international movements act as federal boards. No common principles exist which would determine the application of regulatory powers of these boards. No common regulatory provisions exist. Under these circumstances it is only to be expected that no forward planning of the industry's future, no common studies of the industry's problems, are undertaken.

41. The protection of competitive elements in transportation is an extremely complex subject and it requires co-operation between the agencies dealing with different phases of transportation. An aggressive rate slashing policy -- or an aggressive agreed charge policy -- of the railways may affect the existence of trucking competition. Yet, instead of encouraging inter-agency and inter-industry representation in cases where a regulatory case before one board regulating one industry -- e.g. railways -- can affect other industries -- e.g. trucking -- the rights of such representation either do not exist or are strongly circumscribed and must be made at the highest political level: by appeal to the Governor in Council. Similarly, the regulations affecting the ownership of firms or services by corporations in other transport industries vary from one province to another, with no national policy or supervision. This gap, does not, however, exist in the regulation of air transport, presumably because

this new means of transportation, by the very fact of its relative newness, was organized within a modern regulatory framework, i.e. according to the principles of industrial regulation developed for the second half of this century, and not a hang-over from a previous era. This may be an explanarion, but it strongly indicates a need for reform as far as the regulation of other means of transportation are concerned.

42. The failure of co-ordination and forward planning is perhaps most obvious in the case of so-called piggybacking, or joint rail-truck operation. In spite of the fact that the possibility of piggybacking had been considered for years, began in Canada under Plan 11 at the end of 1952, and was expanded to Plan 1 in 1957, no regulatory changes have been made to deal with this development although it will have a most important bearing on both the railways and licensed long-distance truckers.

43. The file of operating regulations of highway transport does not present a much better picture. Vehicle regulation is within the jurisdiction of the provinces, and the role of the federal Government in this field most necessarily be secondary and indirect. Nevertheless, in view of the commitments of the federal Government to assist in the construction of the Trans-Canada Highway, an undertaking, which one must hope will be followed by further investments

in the modernization of our interprovincial highway system, the federal Government may be expected in the future to take a more active interest in the establishment of common standards of vehicle regulations, a step which is bound to bring considerable economies to the operators, and benefits to the consumers. A subject directly under the Federal jurisdiction is the regulation relating to Sunday operations. Highway transport is at present the only transportation industry which is affected by Sunday restrictions, and this is another example -- a minor one perhaps, but nevertheless important to the conomics of long-haul operations -- where highway transportation does not enjoy "parity of regulations".

44. In addition to the fundamental problems of the present system of regulations, the administrative difficulties must be mentioned. The uncoordinated systems of regulation existing at present result in an administrative nightmare, and what is even more important, in heavy additional costs to the interprovincial operator. In the interests of efficiency alone, the present system must be overhauled.

45. This Commission received an exhaustive submission by the Canadian Trucking Associations Inc. containing a proposal for new legislation relating to the regulation of highway transport. In view of the importance of the subject of regulation to the

healthy development of transport industries it is submitted that it should receive careful attention by the Commission, and the modernization of the present regulatory framework should be one of the Commission's recommendations.

I would like to say at this point that I do not agree with the submission that was made by the Canadian Truckers Association on this point in the formula. However, the trucking industry must be brought under control of the Federal Government, under control of a board appointed by the Federal Government and directly responsible to the Federal Government because I believe the type of board proposed by the Trucking Association would still tend to deal with matters with provincial prejudices instead of dealing with them on a national basis. I have no firm views on whether it should be brought under the Board of Transport Commissioners which could be enlarged and have people on it thoroughly familiar with all aspects of the trucking industry or whether a new board would be required. I am inclined to favour it being brought under the Board of Transport Commissioners. I would point out in the House of Commons last year I seconded a bill which was introduced by Mr. Chown which we brought forward towards the end of the session mainly for the purpose of bringing up debate on that particular subject. It was not reached for debate on that particular subject. I

have a copy of the bill if the Commission should be interested.

Competitive Rates and Agreed Charges

46. The importance of competitive rates and agreed charges has been steadily increasing during the post-war era. In terms of volume, as measured by ton-miles, competitive rates and agreed charges accounted for slightly more than 10 per cent in 1949 and to almost 27 per cent in 1958 (Board of Transport Commissioners Waybill Analysis). This indicates the increase in the intensity of competition and the fundamental change in the railway rate making. There is every reason to believe that these trends will continue. With better highways in all regions of the country and with the growth of new means of transport, such as pipelines and air, competition will increase rather than decrease. It is not unreasonable to expect that at some future date the competitive rates and agreed charges will account for more than half of the total traffic of the railways.

47. This fact alone must force a complete revaluation of the regulatory policy relating to railway rates. It was once possible to consider competitive rates and agreed charges as an exception to the general trend of rates, with only limited significance, when the traffic carried under these rates amounted to 10 per cent or so of the total. When the competitive-rated traffic approaches

one-third of the total, and may even exceed one-half in the foreseeable future, it is obvious that these developments should be the main object of rate regulation, or at least a matter requiring most careful consideration.

48. Competitive rate reductions are, in general, of benefit to the public, and are the best proof of the efficiency of our competitive system. At the same time, there is an inherent danger in large-scale rate reductions made by corporations with vastly superior resources. The danger, of course, is the elimination of the competition which forced these rate reductions in the first place.

49. Therefore, it is no longer possible to consider railway rate reductions in isolation; i.e. it is no longer possible to consider railway competitive rates without taking into account the results of rate cutting on the competing industries, among others, the trucking industry. Thus it is essential to allow the representatives of the highway transport industry to take an active part in the rate proceedings affecting this industry, and to have the right to complain to the Board of Transport Commissioners against competitive rates which vitally affect the industry.

I might just interject, that was one of the things dealt with in one of the two bills that I introduced as an exhibit.

Strangely enough these rights are not

recognized in the existing legislation, and consequently changes in the legislation are required.

50. The problem of agreed charges is similar. In certain respects the competitive impact of the agreed charges is greater than that of competitive rates, since the agreed charges necessarily result in a withdrawal of most of the potential traffic from any carrier competitive with the railways. In some cases it may mean complete elimination of the competing carriers. As an example, there is a recent agreed charge signed by the railways with the breweries, relating to haulage of beer in Western Canada. As the result of the agreed charge two trucking firms, Breweries Transport Ltd., and Northern Brewery Transport Ltd. have been eliminated; these firms simply discharged their employees and put their equipment up for sale. Such an elimination of competition is not in the long term public interest, and more effective means of control should be instituted. Two ways of dealing with the problem suggest themselves:

1. Simplification of the appeal procedure against the agreed charges by allowing any association or other body representative of motor vehicle operators to appeal to the Minister of Transport in respect to agreed charges which threaten to eliminate large parts of the industry or segments thereof, the Minister being

empowered to refer the appeal to the Board of Transport Commissioners for investigation.

2. Legal limitation of the percentage of traffic affected by agreed charges.

51. At the same time the subject of agreed charges and competitive rates and their effect on different regions, classes of customers, and competing industries should be periodically reviewed so as to provide the Government and the Board with current guidance as to the impact of these rate policies on the transport industries and national economy, and thus assist in making changes in the regulatory policy as required.

Piggybacking

52. Movement of freight by trailers on flat cars and containers capable of being moved on highway and railway is one of the most dramatic manifestation of changes in transport technology. Unfortunately, the rate of technological progress has not been matched by progress in regulatory policies. The very fact that this type of movement affects two independently regulated transportation industries creates considerable problems. If the licensing of public carriers and rate stability are considered as important elements of transport regulation, effective steps must be taken to bring this development under control.

53. Possible solutions to the problem of piggyback regulations, in order to assure the

maximization and continuity of benefits to the public are:

1. Assuring the stability of piggyback rates and the continuity of service to duly licenced carriers availing themselves of this service. In other words, highway carriers who come to rely on piggybacking, with consequent changes in their organization, should be assured that the service will continue to be available to them at fair rates and without discrimination.

2. Piggyback service should either be restricted to licenced carriers, or licenced carriers should be given definite rate or service advantages. If this condition is not met -- and it is possible that it can be met only through legislative changes -- then uncontrolled and occasionally unreliable non-licenced operators or private carriers would be given privileges of inter-city carriers without assuming any responsibilities of a licenced operator.

Railway Entry Into Highway Transport

54. The problem of railway entry into highway transportation can be considered from either point of view:

1. Establishment of services supplementary

to railway services, or

2. Diminishment of competition in transport.

55. Both aspects are important, and both should be considered. Advocacy of the policy of caution against the dangers of railway penetration into highway transport does not necessarily contradict the realization that under certain circumstances railway owned highway service might be beneficial.

56. Surely, the practical problem is the analysis of benefits and dangers of any particular situation. Benefits from railway entry into highway transportation exist in two situations:

1. Where, without a railway supported service no transportation service would exist; and

2. Where joint railway-highway operation brings benefits of more efficient operation.

57. The second condition exists only if joint ownership coincides with joint operation. Where joint ownership implies only subordination of a trucking company's policy to the railway management, then the case for railway entry on grounds of efficiency or "better service" does not exist. On the other hand, the dangers of a monopoly situation developing in transportation as the result of acquisition of trucking companies by the railways are very real.

58. The companies acquired by the railways are normally large companies, engaged in long distance traffic. These are the very companies which forced competitive rate reductions, or kept the general rate level lower than it would otherwise have been. In order to engage in this type of business these companies had to be large, they had to develop an extensive system of terminal and route facilities, a system which could not be duplicated in a short period of time.

59. In other words, the establishment of large scale interprovincial trucking which provides the main competition to the railways has changed the

structure of this part of the industry. It has also changed the circumstances which make it possible for one of two large corporations to achieve and maintain a position of monopoly, or at least complete supremacy. Therefore, the acquisition of trucking companies by the railways brings a very real threat of re-establishment of monopoly in transport, a monopoly which had been broken by the development of the trucking industry.

60. The investment in trucking is more and more shifting into the hands of the railways and it is probable that, even without further acquisitions, their share of highway freight traffic will increase. It is most doubtful whether it would be possible, or acceptable, to force the railways to divest themselves from the businesses they have acquired, although even this possibility must be kept in mind: the history of anti-monopoly legislation in the United States provides examples of breaking up companies which have achieved a monopolostic position. But even if the policy of forced divesting of investment is recognized as impracticable at present, surely there are all the reasons the Commission should consider whether, at the very least, it should recommend very careful control over future acquisitions of competitive trucking companies by the railways. Granted that, on some occasions, the resulting economies may outweigh the possible dangers, a complete prohibition of further acquisitions of trucking companies by the railways might

not be in the public interest, there is, nevertheless, a good case for making legal provisions, similar to those existing in the Aeronautics Act, which would require special permission by the Governor in Council, or by a regulatory body, for any acquisition of trucking companies by the railways.

61. This proposal is nothing more than a logical conclusion from basic principles, which, in my opinion should be the foundation of our transportation policy, namely, the principle of fostering competition, and the principle of consistency of transport regulations relating to the different forms of transportation. If we need competition in transportation we must protect it by imposing control over possible monopolies; if we protect competition in air transport by having inserted into the Act (Aeronautics Act, chapter 2, the Revised Statutes of Canada 1952, Section 15, Subsection 2) a provision controlling the entry of other transport interests into this industry, surely as strong a case exists for protecting the highway industry against monopolistic encroachments. In fact, the case here is much more urgent because of a more pronounced competitive situation and the evidence of recent years of the railways' attempt to dominate the highway transport field by acquisition of large companies.

Conclusions.

62. This submission has been focussed on the main principles which, in my respectful submission, should be the foundation of our national transportation policy.

The practical implications of these principles have been discussed from the point of view of establishing a sound framework which would enable all transport industries to develop according to their capabilities.

63. The basic principle, from which all the recommendations follow, is the belief that the best, more impartial, and most efficient regulator in transportation, like in any other form of economic activity, is competition. From this point of view that major problems of transportation have been reviewed.

64. On the subject of transportation subsidies I have stressed the danger of harming the competitive, or potentially competitive, industries by one-sided subsidies. I have also made a careful distinction between programs of assistance which create new industries of services, and which are of a long term assistance to the economy, and subsidies which, at the very best, provide only temporary relief.

65. Transport industries are regulated. The problem of consistency of regulations with the preservation of competition is basic to the development of our transportation system. The practical problems are the adjustment of regulations to the changing conditions. In this respect our federal regulatory framework is sadly outmoded and must be revised. It must be revised to take care of the expansion of long-haul truck services, interprovincial and international in scope, which we still insist on regulating as if they were local services. The regulatory framework

must also be revised to take care of new developments such as piggybacking, container services, and acquisitions of firms in one transportation industry by competing transport media.

66. The complex relations between the different transport industries must be carefully taken into account in framing our transport policies: the effects of rate policies of one transport agency might be crucial on the development of another. The possibility of competitive destruction through the practice of extensive rate cutting, or exclusive contracts (agreed charges) must be guarded against.

67. In this submission I have stated more problems than suggested solutions. The solutions to these problems are not easy; they require very intensive and continuous studies. I trust, however, that the ideas and studies initiated by this Commission will indicate the approaches to a successful solution of our transportation problems and express appreciation for the Commission's consideration of my views.

--- A short recess ---

MR. FOURNIER: Mr. Chairman, while I was in Quebec during the weekend I had a look at some of the local newspapers and read the reports as to this extension of time, and it seemed to me that in the reports it was not too clear, through, very clearly, no fault of the newspaper reporter here.

Therefore, I should like to stress that the province of Quebec will file its submission in accordance with the ruling at page 19852 of volume 120, so that it may be heard at the time that has been set, on or around the 4th January, 1961.

THE CHAIRMAN: Yes, that error which you showed me was not due to Mr. Rice.

MR. FOURNIER: Definitely not, sir.

THE CHAIRMAN: The paper itself made a mistake. There is no misunderstanding between you and us.

MR. FOURNIER: No, none at all. I was asked many questions as to whether or not we would file a submission or whether or not the extension had been granted. Therefore, I should like very much to have the press here make sure that it is properly reported.

THE CHAIRMAN: I am sure they will.

MR. COOPER: Mr. Chairman, the difficulty has arisen because the paper picked up the ruling given in the morning, and not the further ruling given in the afternoon after reconsideration.

THE CHAIRMAN: Yes, Mr. Cooper?

CROSS-EXAMINATION BY MR. COOPER:

Q. Mr. Browne, I am sure that you will find the Commission in entire agreement with at least one sentence in your brief, and I refer to your first sentence which reads:

"The problems of Canadian transportation are

1
2 important, complex and controversial."
3 A. I hope they are in agreement with more
4 than that.
5 Q. On page 1 in paragraph 2 of your
6 submission you set forth the fundamental principles on
7 which your submission is based, and the first of these
8 is "belief in the efficiency of the competitive free
9 enterprise system." This theme recurrs throughout your
10 brief at various points, and in your conclusions at
11 page 16 you come back again to that theme by stating
12 that the basic principles from which all the
13 recommendations follow is the belief that the best,
14 most impartial, and most efficient regulator in
15 transportation, like in any form of economic activity,
16 is competition. Does it not follow from this first of
17 your fundamental principles that all media of
18 transportation should be free from any rate regulation?
19 A. No sir, I do not believe that would
20 follow.
21 Q. What restrictions, then, would you place
22 on the transportation industries by way of rate
23 regulation which would not conflict with the free play
24 of competitive forces?
25 A. Well, I think I have already suggested
26 in the brief that where competition would be in danger
27 of being eliminating by one side with its vastly
28 superior financial resources being able to cut rates --
29 that is one instance where a regulation would be
30 required.

Q. Would it be proper to say, Mr. Browne, or to advance the proposition that if one agency of transportation is to be eliminated because another agency of transportation can offer cheaper rates, then the first agency should be allowed to fall by the wayside?

A. Are you referring to any specific agencies here?

Q. Well, let us relate it to trucks and railways and let us say that if in any particular area the railways are the low cost carrier, why should there be any rate regulation to preserve in that area competition from any other agency of transportation such as the trucks? Or, put it the other way round, if you wish.

A. Because I believe there are other benefits to the service than strictly rates. We have the benefits of the variety of services and other ranges of service offered by having more than one industry or one means of transportation.

Q. Suppose we take into consideration even those other advantages, and having done so we find that one medium of transportation is the low cost carrier, then why should not that low cost carrier be allowed to carry the traffic and the other carrier fall by the wayside?

A. Well, I believe that is what, generally speaking, would happen unless -- the objection I have to someone being forced out by unfair competition; as

long as there is fair competition and one industry is able to perform the service better than the other, then of course they should be allowed to.

Q. So long as there is fair competition, then competition should be allowed full play?

A. Yes.

Q. Fair competition should be allowed full play?

A. Yes. I believe where someone is forced out of business because one party has all the transport tied up under a contract, as in an agreed charge, or where someone is forced out of business because they are operating at an unrealisticly low rate, then regulation is required; but if that is not the case, and they are operating on a fair competitive basis, and one industry can do better than the other, I think it is only natural they will get the business, anyway.

Q. Would you put the test as to whether or not there is an unfair rate as being whether or not the rate is compensatory? If it is compensatory would you regard it as a fair rate regardless of the effect it may have on competition?

A. I find this question of a compensatory rate is something very difficult to define and determine exactly what a compensatory rate is. During the parliamentary committees I have been on the railways have been asked that specific question, and until I can tell what is meant exactly by a compensatory rate, I would hesitate to make any comment on it. If you would

care to define it for me ....?

Q. Let us say it is one which returns the variable cost of moving the traffic plus making some contribution to overhead?

A. I think the only basis on which I could accept is that it must return all costs, because in the long run I do not think -- my own experience in transportation has been that I could convince myself I have certain licences and certain insurance that is going on whether I move that freight or not, and it may be true I could take a particular instance and say that if I move these goods from here to there it will cost so much, but in the long run I do not think that policy is a sound one, and in the long run I think a policy of returning all costs plus some measure of profit is what is required. That is what I would accept.

Q. Are you suggesting every rate must return its full costs?

A. Yes.

Q. On page 3, paragraph 12, you state:

"The changes which have taken place within the trucking industry have made traditional approaches to the problems of transportation obsolete."

What are these traditional approaches which are now obsolete?

A. That statement was really based on a statement made by the Turgeon Royal Commission in which he stated -- and I am now paraphrasing and not making

an accurate statement -- or a word by word statement -- his impression was that there was little danger of a monopoly developing in transportation because of the ease of exit and entry into the trucking business. I believe that is no longer true because of the greater capital investment required in trucking, particularly on the long haul ones that I am referring to here. It is only over a long period of time, with large capital investment, building up your terminal facilities, and teletype and so on, required to carry on on a transcontinental basis, and therefore it is no longer easy to get in and out of the trucking industry on that basis, and that is why I make that statement.

Q. You have referred to the long haul trucking industry in various parts of your submission: what do you consider the proper definition of "long haul" in the context in which you have used the words?

A. Well, generally speaking, I refer to it as inter-provincial or extra-provincial.

Q. So you would divide trucking, then, into intra-provincial and inter-provincial. The inter-provincial trucking you would designate generally as long haul traffic?

A. Yes, generally, although I would not say there are not cases within a province that could not be considered -- if you ran the entire length of a province, north to south or east to west -- but in my mind I use that as a general guide.

Q. All I am trying to establish is what

you mean when you use these certain expressions in the brief so that the Commission will have a better understanding of your brief, and that is why I am asking this question about the word "long haul".

COMMISSIONER ANSCOMB: May I interrrupt, Mr. Cooper? Just to clear that point, would you think from Vancouver to Fort St. James is a long haul?

THE WITNESS: No, I would not consider that. It would be getting border-line. I would say 400 miles and more would be becoming long haul.

MR. COOPER: Q. I was going to ask you to put mileage figures on it, and you have done in the answer to Mr. Commissioner Anscomb. Can we take it, generally, when you are speaking of long haul traffic that you are speaking of hauls over 400 miles?

A. Yes.

Q. On page 3 also, Mr. Browne, in paragraph 15, "The first aim of the National Transport policy should be preservation of the principle of freedom of choice as to the means of transport, as long as it is technically or economically possible", and you go on to speak of the possibilities of the establishment of a transportation monopoly as being something that should be watched carefully and, if necessary, counteracted. You also refer in that paragraph, in the last sentence, to the application of this principle -- that is, the principle of which you have been speaking in the paragraph -- as requiring national control over the acquisition of transportation firms

by firms established in other transportation industries, and also the right of one transportation industry to intervene in cases where the rates established by its competitor may lead to elimination or weakening of the competition. Perhaps we are coming back to what we were discussing in my opening questions, but have you reference there in the last sentence which I have read to agreed charges and the elimination of competition or weakening of the competition by the entry by the railways into agreed charge contracts?

A. Yes, that would be -- your competitive rates; agreed charges or competitive rates. I am inferring there that the industry should have the right to appear before the regulatory board -- a right which they do not have at the present time.

Q. There is nothing which prevents, is there, Mr. Browne, the trucking industry from entering into agreed charges?

A. Not so far as I am aware.

Q. Do you know, if, in fact, truckers do enter into agreed charges?

A. I have never heard of any.

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Q. On Page 4, in Paragraph 16, Mr. Browne, you refer to the second important aim of transportation policy as being the encouragement of progress and you said,

"In practice, it must mean that no protection should be given to the established transport medium, either through a one-sided subsidy, or through preferential legislation."

When you use those words "established transport medium" are you really referring to the railways?

A. Well, it would be very applicable to them.. I would not say it is the only one. My basis is that everybody should receive the same treatment.

Q. Whether railways or trucking industry?

A. That is right. In other words, it happens at this particular time, perhaps, that the railways are established, and trucks are coming on; trucks may be established and pipelines coming on. I am simply saying that everybody should be dealt with on the same basis.

Q. You would regard the trucking industry as being a well-established transport medium?

A. Yes . Except insofar as regulation is concerned. I think that they are not established in that way. There is no Federal legislation so far as the Federal Parliament is concerned that

really deals with trucking in any way. It is in no way shape or form really recongized under Federal legislation; the only thing being the Motor Vehicle Transport Act, which was in effect a delegation of the thing back to the Provinces.

Q. But in a business sense or in the sense of an industry carrying on a business, the trucking industry is at the present well established?

A. Yes.

Q. Also on Page 4 in Paragraph 19 you outline certain conditions which must be met if national transportation principles are to be applied to the field of highway transport, and the third of those conditions is, and I quote:

> "3. The legislative framework within which the trucking industry operates must be adjusted to the present needs of the industry; "

Have you reference again there, as I presume you have, to the necessity of Federal legislation and control over the trucking industry?

A. Yes, I do.

Q. When you speak of Federal control over the trucking industry you must be speaking, of course, only of inter-Provincial trucking operations?

A. No. My understanding is that Federal control would apply to the intra-Provincial operations of an intra-provincial carrier, and that

stems from the decision made from the Privy Council from the Winter case.

Q. But it would not apply to the intra-provincial trucker solely?

A. No. It would refer to the intra-procincial trucker even though it was being done by the intra-provincial carrier, but not to a carrier who was structly intra-provincial and never at any time ran outside of the provinces.

Q. And you are not suggesting that whatever constitutional changes might be necessary be made to place that class of trucking operation within Federal control?

A. No.

Q. Now, the second of the conditions on Page 4, Paragraph 19, is that the impact of the rate policies of the established forms of transportation on highway transport must be taken into account. I would like you to enlarge on that, if you would, Mr. Browne, and just indicate in a little more detail just what you have in mind there.

A. Well, my feeling has been that -- in fact, to give you an example of what I was thinking of here: We had in British Columbia an instances where trucks and rail were both hauling at the same rate. I believe it was through Okinagan to the City of VAncouver. The railways applied for a 17 per cent rate increase, which was granted by the Board of Transport Commissioners and which they instituted.

In this particular case, the trucking industry also asked for a 17 per cent increase, but they were only granted by the Public Utilities Board, and which the Provincial Board would only give them 7½ per cent, or half of what the railroads got, approximately, and the both put their new rates into effect. Then, the railway turned around and reduced their rate down to a very low level, far below what it had been before they asked for the 17 per cent increase. The trucking industry followed suit and they had to reduce their rate. No balance of traffic changed hands; they both kept approximately the same amount of traffic they had and I think that a Board should be in a position to consider that type of thing happening, from looking at both of them; not two separate Boards. These rate policies must be looked at in an over-all picture, not having two separate boards looking at the rate policy of each.

Q. You are suggesting that one Board -- you say, the Board of Transport Commissioners should be charged with the control both over railway rates and inter-provincial truck rates?

A. That is right.

Q. And that whenever the railways go before the Board of Transport Commissioners for an increase in rates their application should not be considered unless representations are also heard at the same time from the trucking industry. Would

you go that far?

A. I would say that both industries should have the right to appear whenever the other is making an application.

COMMISSIONER ANSCOMB: Mr. Cooper, I am sorry to interrupt you again. But the point you have just stated deals distinctly within a province -- Okinagan to Vancouver -- not out.

THE WITNESS: Yes, that is right.

COMMISSIONER ANSCOMB: You are not suggesting a Federal Board is going to interfere with rates within a province?

THE WITNESS: No. What I say is that the trucking industry should be able to appear before the Federal Board when those kind of cases arise.

COMMISSIONER ANSCOMB: Even cases that happen within the confines of a province?

THE WITNESS: I believe so.

COMMISSIONER ANSCOMB: That was hardly what you said before.

THE WITNESS: I'm sorry; that was what I intended to convey.

COMMISSIONER ANSCOMB: Thank you, Mr. Browne.

MR. COOPER: Q. What you said before, I think, was that you were not advocating rate control by a Federal body in the case of an intra-provincial trucking company operating only within the confines of the province?

A. No, but I believe that the trucking industry as a whole should be still able to, by right, appear at the hearings before the Federal Board.

Q. What you were saying before was that there be no rate control over that segment of the trucking industry by a federal body, but that the intra-provincial operator, either singly or through an association should have the right to appear before the Federal Board when anything affecting his rates is in question?

A. Well, in the first instances I have always referred to an association. I do not believe an individual carrier should have the right to appear. Secondly, it is not so much the right of a trucking industry but in many instances when the railways apply for a rate reduction in particular it is because of competition. And it seems to me that if they are saying "Truck traffic is moving at such and such a rate; therefore, we must have a lower rate", that it would only be natural and to the assistance of the Board that the trucking industry would be able to be there and present the kind of information that the Board would require in order to make a decision.

Q. You are suggesting now that the test in Section 334 of The Railways Act, that a competitive rate must be compensatory or the railways must be in a position to prove that if called

upon to prove it, would be better applied or more intelligently applied if the Association of Trucking Industries or associations had the right to appear always before the board when these matters are in issue?

A. Yes. I might say at this point, too, that I think that that clause is not in The Transport Act, so far as I know; with that requirement, so far as I know, is not in The Transport Act where the agreed charges are covered.

Q. Do you consider that it should be in The Transport Act?

A. Yes. My feeling is that it should be on the same basis. As I have stated earlier, I believe that all rates must be on that basis.

Q. In other words, that there should be a provision in The Transport Act that the railways must justify, if called upon to do so, their agreed charges in the sense of being able to establish that they are compensatory?

A. Yes.

Q. Also, on Page 4, Paragraph 19, the fourth condition in that paragraph states:

"4. Any attempts to establish a monopoly in the competitive sector of the industry must be prevented."

I am not quite clear as to what you mean by the "competitive sector of the industry".

A. Well, there are some instances where

there is absolutely no competition whatsoever, and I was really referring, there, to the acquisition of truck lines by the railways in instances where there is direct competition at the present time.

Q. Then, there is an area where the railways in fact are the only carriers?

A. Yes. However, I have dealt with that in another section of the brief, and I would not want to give the impression I am saying there are areas that are not competitive and will not be competitive. I believe all freight is potentially competitive at the present time.

Q. That is exactly what I wanted to clarify for the benefit of myself, if not for all concerned. Do you consider today that trucks are competitive in all areas and over all traffic with the railways?

A. No, I do not beleive that that situation could be said to exist at the present time. It is rapidly approaching, and all I am saying is we must not take any step or we should not take any step that will prevent that situation from coming about, because if there is no action taken by subsidies to one particular form of transport, I believe that situation will soon be overcome.

Q. So that you expect that the trucks will in the near future become competitive with the railways over the entire range of commodities which are shipped and over all distances?

A. Yes.

Q. Now, I said there "in the near future". How long do you think it would be before that condition came about?

A. Well, I would just like to give you a reference here from the Royal Commission on the Great Slave Railway. There were two or three interesting statements made by the Commissioners with regard to grain hauling, for instance, which I think is one of the things that one could expect is not likely to become too competitive. From Page 15 of the Report of that Commission, the Royal Commission on the Great Slave Lake Railway -- that is in the statement of the Chairman, Mr. Justices Manning, and he has this to say:

"We have been advised on reliable authority that truck traffic has improved to the point where it even competes with railways in some places in carrying grain. A group of railways running into St. Paul, U.S.A., have recently applied for permission to reduce freight rates on grain to compete with trucks. In British Columbia trucks are now carrying substantial quantities of grain from the area around Creston for distances of 250 to 300 miles in direct competition with railways." I think that gives some indication of the progress that is being made in that field and what can be expected in the future.

Q. That grain in British Columbia is being carried at domestic rates, and not at Crow rates?

A. That is right.

Q. If Crow rates were double, do you think that trucks could compete in the carriage of grain for export?

A. I would not think so.

Q. Now, Page 6, Paragraph 24. You state:

"It would be most valuable if the Commission found it possible to include a co-ordinated planning of national transport investments -- investments by the Federal Government -- among its recommendations. Such co-ordination of investment policies in transport would have to take into account the interests and potential contribution of all means of transportation."

Now, it would be quite a large order for any Commission to lay down a plan for investment by the Federal Government in all fields of transportation, but is that what you had in mind?

A. Yes. I was not thinking of any particular one board doing that. My suggestion there is that I do not feel the Government should invest in the Trans-Canada Highway, for instance, without having advice from the Board of Transport Commissioners and perhaps an interdepartmental committee of Government who would be able to advise them on the

requirement of the other fields, and they should all be considered at one time rather than deciding today we need this, or we need that. We should be deciding a programme of what is the most urgently needed and a long term programme of how that is to be carried out.

Q. What you are suggesting here is that this Commission might well consider making a recommendation that before the Federal Government makes what you term "national transport investments" studies should be made as to the impact of such an investment on all forms of transport and like matters?

A. Right.

Q. In effect, that would mean either one Board or perhaps more than one board set up to study the whole transportation picture from the aspect of capital investment in transportation in Canada?

A. That is right.

Q. On Page 7, you deal with the problem of subsidies and your submissions with respect to subsidies continue on page 8, and I only want to ask you one or two questions with respect to the question of subsidies.

As I understand what you have here on that subject, you envisage subsidies as being for the relief of shippers so that amounts paid to transportation agencies are passed on to shippers in the form of lower rates to those shippers?

A. That is right.

Q. What are your views with respect to the payment of subsidies to railways to compensate the railways for continuing in operation unremunerative services which they must continue in operation because it is in the public interest that such services be continued, in spite of the fact that they are unremunerative?

A. Well, I believe I have dealt with that in the Brief to the extent that it must be made absolutely plain what the subsidy is for. It is for us for the purpose of doing that. It must be made absolutely plain that it is for that and not for the benefit of the railway and I have outlined the ways in which I feel the subsidy should be paid if it is used for that purpose.

Q. I am just trying to separate the two; a subsidy paid direct to the railway to compensate it for having to carry on an unremunerative service, that is one, and that is a subsidy presumably paid because it has been determined that it is in the public interest to continue an unremunerative service.

A. In other words, you are referring to perhaps one particular geographical area which would not have a railway service in that area and no other form of transportation is available, I take it.

Q. Yes, that would be one example.

A. I believe, as I say, if in that area the rates had to be put up there must be some point at which the rates will compensate the railway for running the line.

Q. I am divorcing this part of my question from rates altogether. Let us take a railway which is abandoning a branch line and let us say it is determined in the public interest that that branch line must be maintained in spite of the fact that the railway is losing money on its operation. Should the railway, under such circumstances, be given a subsidy to compensate it for having to carry on that service. That is apart from any question of rates or anything else over that line.

A. Well, the subsidy should be paid to the railroads on behalf of the people of that area but not to the railroads for their own purposes for carrying on the line. If they want to discontinue that line and

there are other forms of transportation then I think perhaps it should be discontinued if you wish to substitute a truck service. But, I do not think it should be paid as a subsidy to the railroad on their own behalf; it should be paid on behalf of the people in that area who will stand to benefit. It must be made quite clear why this subsidy is being paid.

Q. And you are suggesting that the amount of the subsidy must be passed on to the people of that area in the form of rates reduced and so on.

A. Not necessarily. That will be a question of policy. I am saying it must be made quite plain to the people of this country why that subsidy is being paid.

Q. Let us suppose it is quite plain that this particular subsidy is being paid to a railway because it has had to keep a branch line in operation at a loss on the ground that public interest demands maintenance of that branch line. Then, you would have no objection to the payment of the subsidy to the railway under those circumstances.

A. Providing there was not some alternative means of transportation.

Q. Regardless of whether it was in the public interest or declared to be in the public interest to carry that branch line, the railways could not look for any subsidy.

A. I do not believe under any circumstances that one-sided subsidies should be paid for a subsidy that

is going to be paid and there is more than one form of transportation. It must be paid to all forms of transportation equally.

Q. I suggest what you say would apply equally to an example of attempted discontinuance by the railway of passenger services and an unsuccessful attempt by the railways to discontinue passenger services.

A. Well, I do not believe that there should be unsuccessful attempts. If the service is not required and it is not remunerative then it should not be carried on.

Q. Well then, you cannot visualize the situation where public interest would require the carrying on of unremunerative services or branch lines by the railways?

A. Not as long as there is some other type of transportation available.

Q. On this problem of subsidies, again you mention on page 8 the method of payment of subsidies and you give two methods:

"The first method is obviously applicable in the case of the Maritime shippers, the second in the case of grain movements, if it is decided that Martime Freight Rate assistance is to be continued, in accord with the conditions of Confederation, and if a subsidy on export grain movement is recommended".

Assuming that a subsidy was to be paid, to whom

would it be paid or should it be paid, in your opinion, to the Canadian Wheat Board?

A. Yes, my understanding is they are the shipper and they could distribute that along with money they receive and a payment should be made available to all people to be shared by the Wheat Board.

Q. So, it is your view that any subsidy paid for the movement of grain to export positions should be paid to the Canadian Wheat Board?

A. Yes.

Q. And the result of that would be, and you will correct me if I am wrong, that the Wheat Board would then be in a position where it would have a choice of shipper.

A. Yes, that is my intention. They would have a choice of means of shipping and they could ship by whatever form of transportation might be available to them.

Q. You do not think, even if the present rates were developed, that the trucks could enter it at all.

A. I am not in a position to say what rate the trucks would require for that at all.

Q. In paragraph 34 on page 8 you say:

"If the disadvantages of the areas of Canada which are located far from their markets or supply sources are to be diminished, the way to do it is through an

aggressive and planned program of cost cutting investments, since by this method the source of the problem -- high cost of production or distribution - - is attacked and not its manifestation. In this way the basic problems are solved rather than their symptoms being buried under a growing burden on the taxpayer's pocket."

Could you indicate just what you mean there, Mr. Browne, by way of example or otherwise? Are you suggesting that there should be no subsidies to compensate for disadvantages in areas of Canada far from markets but there should be some system of capital investment for industries there.

A. Partially that.

Q. To make it more efficient?

A. Also I would like to say that one type of subsidy that I have in mind here is the bridge subsidy which brings the geographic areas of Canada closer together. I have had many representations since being a member of parliament that while this was presumably all right, it also hinders other people. I have had many representations from the fruit industry in the Okanagan Valley of British Columbia who found markets for their fruit in the prairies and now have been, because of the fact of the bridge subsidy bringing goods to the prairie markets from eastern Canada, they are finding it difficult to compete. A subsidy of that type sometimes has an

effect on other markets and I think we have to be careful in that kind of thing that we may be able to help the people in these geographic areas, perhaps by providing capital for investment there.

Q. What I was trying to get at, perhaps some specific suggestions, if you are in the position to give specific suggestions, with reference to paragraph 34. There you merely state:

"... the way to do it is through an aggressive and planned program of cost cutting investments ..."

Just what would you mean by that in specific terms? I mean, for instance, the goods might well be able to be manufactured in those areas that are being transported in there and perhaps capital investment, capital being made for development of that area to help them to manufacture their own goods instead of having to bring them in or produce raw materials of one sort or another, where will the capital come from?

A. Perhaps from the Industrial Development Bank.

Q. If it could not be made available from the Industrial Development Bank would you be in favour of payments from the federal government to carry on such a program?

A. I see no real difference between a government guaranteed loan through a chartered bank and the Industrial Development Bank. I do not think the government would like to directly lend the money

there.

Q. You would have to satisfy the requirements of the Industrial Development Bank.

A. That is right.

Q. On page 9, paragraph 36, under the heading of "regulation", you say:

"The reason for economic regulation in transportation is the protection of the long term interest of the customer."

Now, "economic regulation" just what area are you taking in by that expression? I presume it goes beyond mere rate regulation, does it?

A. Yes, it takes in all types of regulation as we have them today. I consider the whole to be ----

Q. On page 9 also generally under the heading of regulation you deal -- I cannot find the reference to it at the moment but I believe you do deal with the question of monopoly. As I understand it your position is that competitive forces should be allowed if they are building up to a point where competition is threatened to be destroyed by monopoly.

MR. DRYSDALE: That is paragraph 37.

MR. COOPER: Q. Paragraph 37, subsection 2. You mention in paragraph 37 the general principle to which you previously referred and certain practical tests and you say:

"Does it strengthen the healthy competitive elements, i.e., does it encourage the growth of strong enterprises and protect the public

against the possibilities of the creation of unwanted monopolies?"

Your position on this question of monopoly is that there should be some authority to prevent a situation developing where monopoly can be imposed on shippers in the transportation industry?

A. Yes, there are some areas where perhaps at least temporarily it may not be avoided. What I am referring to is a question of direct lines of the railways which would create a monopoly by the railway having both means of transportation forcing people out by low rates and that sort of thing where they are not justified and where the rates would go up again when the monopoly had been created.

Q. But on that point you are not suggesting that the railways will be required to divest themselves of trucking companies which they have acquired?

A. I think that is something that the Transportation Commisssion should give some thought to. I am not in a position to know the exact percentage of the trucking industry that is owned or controlled by the railroads but in reading through the Commission hearings and looking at the subsidiary holdings of the Canadian Pacific and from having served on the parliamentary committee dealing with government-owned railways and so on, I know the Canadian National Railways is now obtaining substantial holdings. I believe that is something the Commission should look into very thoroughly.

Q. You are merely pointing it out as an area of enquiry both as to ownership at the present time of trucking companies by the railways and as to possible further acquisitions in the future?

A. Right.

Q. On page 12, paragraph 48, you say:

"Competitive rate reductions are, in general, of benefit to the public, and are the best proof of the efficiency of our competitive system. At the same time, there is an inherent danger in large scale rate reductions made by corporations with vastly superior resources. The danger, of course, is the elimination of the competition which forced these rate reductions in the first place."

Now, we may have touched on this before but I want to put this question to you: provided that the rates are compensatory -- I will have to come back to that word again -- where is the danger of which you speak?

A. Well, for instance, it limits it to one type of transportation. As I say, rates are only one factor involved but there is also time, the speed with which goods can be transported and that becomes very important in Canada particularly because of the fact that we have had a chronic shortage of capital in this country. The speed with which goods can be moved is very important because if they can be moved more quickly it means the inventories can be a great

deal smaller and so actually reduces the amounts of inventories that are required to be held in Canada amounting to several hundred million dollars. The fact that it can be moved quicker. All these things must be taken into consideration, it is not entirely a matter of rates.

Q. But just directing one's attention solely to that one point, you say:

"And at the same time, there is an inherent danger in large scale rate reductions made by corporations with vastly superior resources."

I am saying that if these rates are compensatory and they offer the lowest rate for a shipper to move his goods then what is the danger in allowing this rate to the general economy of the country?

A. I think in my reference I was not saying there was a danger in that kind of rate reflection. The danger I was referring was danger of where a concern with large financial resources is making an unwarranted or unjustified reduction.

Q. But, do you consider that the present provision of the Railway Act guards against the danger of an unwarranted or unjustified reduction in that railways must establish that the rates are compensatory. Is that not a sufficient test?

A. No, I do not think so, because I do not think, from the evidence that I have read before other hearings, the Board very very seldom has ever entered into whether or not the rate is compensatory. The

railway has, on very few occasions, been asked to prove that a rate is compensatory. Secondly, as I say, there is no absolute definition of what is compensatory to begin with and I feel that is not sufficient protection.

Q. What protection are you then suggesting?

A. Well, I believe that the Board has to get a better test for compensatory rates. Perhaps they might need a larger staff to handle it. I think I have a reference here that perhaps will -- some evidence that came before the committee on railways, canals and telegraph lines, I think in 1955, dealing with this point. This is the standing committee on railways, canals and telegraph lines, the minutes of proceedings and evidence No. 10 and it is for Tuesday, June 28, 1955. The evidence, I might say, in here was taken from a previous hearing held before the Board of Transport Commissioners. However, this is the evidence as is found at page 380 and this is dealing with the number of times that railways have been asked to show that that their rates are not compensatory and how that has been done.

It is rather difficult to find that place without taking up too much time of the Commission. The general trend of questioning had been going along as to when the railways had been asked -- the Commission asked:

"The Commissioner: Q. Mr. Edsforth, are you often called upon to do that?

A. We have not been so far, My Lord, very many times, but the requirement is still there and we must bear it in mind when making a rate.

"Mr. Hume: Q. May I just follow that up by asking you, of the 11,828 competitive rates put in the first four months of this year, were you asked to comply with that, to do that in any one of those, that you remember?

A. I do not recall any specific instance, Mr. Hume, except that I do think the Board has asked us on one or two occasions to give them certain information on our rates.

Q. And you have 1 million 200 thousand rates, so one or two instances are not a very severe regulation?

A. Well, of course, it is always there and may be applied at any time.

Q. But it is not so severe?

A. No."

There is quite a considerable amount of testimony on that point, but I think it is an indication that although the requirement is there it is

something that is very difficult for the Board to determine -- what is a compensatory rate. There is no real definition of it, and I do not think it offers protection as it is at the present time.

Q. What do you think should be done to offer protection?

A. Well, I believe in the first instance we need to determine what a compensatory rate is; and, secondly, to see it is enforced.

Q. What specific suggestions would you have as to seeing that it is enforced?

A. I believe if the Board had a proper definition they would then be in a better position to enforce that, and perhaps the major thing is that we need to determine what is a compensatory rate and how it should be arrived at.

Q. Are you suggesting before the railway put in any rate it must establish to the Board that it is compensatory before it is allowed to put in a rate at all?

A. No, I am not suggesting that. I do not believe the railway should be held up from putting in rates by any means, but I do believe from the evidence I have just quoted that with the number of rates made there is really no consideration of them at the present time as to whether they are compensatory or not.

Q. You consider, then, that section 334 as to compensatory rate is something, which, in fact, is not given much attention to, if any attention?

A. That is right.

Q. On page 13, paragraph 51, you state:

"At the same time the subject of agreed charges and competitive rates and their effect on different regions, classes of customers, and competing industries should be periodically reviewed so as to provide the government and the Board with current guidance as to the impact of these rate policies on the transport industries and national economy, and thus assist in making changes in the regulatory policy as required."

What board should conduct any such periodical review?

A. Well, as I have said to the Commission, in setting up a Board it would depend on the nature of the Board regulating the whole of transportation. If the trucking industry were brought within the bounds of the Board of Transport Commissioners, then it would be that body.

Q. Then, you would put on the Board of Transport Commissioners the job of periodical review of all agreed charges and competitive rates? I am suggesting, Mr. Browne, and you will correct me if you consider that I am wrong, that this would have the effect of converting or enlarging the functions of the Board of Transport Commissioners into an economic planning board?

A. It would certainly enlarge the functions

of that board if all of these things are transferred to them. I am not necessarily saying that everything must go to them. I say whatever board is decided upon to control these various aspects, then it must be brought before the proper regulatory board. It may be the Board of Transport Commissioners, but not necessarily. If they were having too much to do ---

Q. No matter what board it went before, that board would become an economic planning board, would it not?

A. I do not know just exactly what you mean.

Q. They would have to look into agreed charges and competitive rates that form a very large proportion now of the rates established by the railways, and they would have to consider the impact of those agreed charges and competitive rates on the whole economy of the country, really?

A. Yes, but ---

Q. As I read your paragraph?

A. Yes, but I am not saying they should have the power to change those things necessarily, but to make that information available.

Q. Do you think, Mr. Browne, that this derogates from the principle of a competitive free enterprise system -- this setting up of a board to look into all these rates and determine their impact upon the various segments of the economy, and, in fact, upon the economy as a whole?

A. No, I do not believe it derogates from

free enterprise. The United States has for many years had a great deal closer regulation -- I am referring particularly to western Canada; my own firm hauls into the state of Washington and we are controlled there by the Interstate Commerce Commission, and in comparing that with the type of regulation in Canada, there is a great deal more of it, but I do not find it brings about any less competition in that area.

Q. Throughout your submission, Mr. Browne, you have referred, as I understand it, only to the for hire trucking industry?

A. That is right.

Q. There is a large segment of the trucking industry today, is there not, consisting of the private trucking segment of the industry?

A. Yes. I do not think there is too much private trucking of an inter-provincial area that would come within the scope of the federal government. Where it would come within their jurisdiction they should be subject to the same control as other forms of transport.

Q. But there would be a very considerable movement of goods by private firms owning their own trucks which would not be caught by any regulations you have suggested?

A. Of course, there are provincial boards to deal with the intra-provincial operations which would still be in effect regardless of anything the federal parliament would do.

Q. Are you suggesting with respect to

intra-provincial movements that rates should be set and controlled by provincial boards?

A. Yes, I believe they should be.

Q. There should be rate control in all provinces with respect to these intra-provincial movements?

A. I am hardly in a position to tell all of the provinces what to do. I might advocate the province of British Columbia should do something. I would hesitate to take on the task of telling the others what to do.

Q. But you are in a position to express your opinion?

A. Yes, I am a firm believer in rate controls.

Q. And you consider that does not derogate in any way from the competitive field?

A. When I say "rate controls" I mean maximum rate controls, not to set the actual rate that can be charged.

MR. COOPER: Thank you, that is all I have.

THE CHAIRMAN: Mr. Brazier?

MR. BRAZIER: I have no questions, Mr. Chairman, of Mr. Browne, but as counsel for the province of British Columbia I did want to state how I delighted I was that Mr. Browne saw fit to take time out of his busy schedule to come before this Commission and present his views on a very important aspect of the transportation problem with which the Commission is dealing. It is a further source of satisfaction that he chose as his counsel Mr.

Drysdale who was at one time associated with me in the practice of law and I can see Mr. Drysdale, in his usual way, has done his homework before coming here and read many of the transcripts.

THE CHAIRMAN: I think I said to you you were the first members of the House of Commons we had seen, but at Port Arthur we had Mr. Fisher and Mr. Badanai come before us. However, you are the first here.

--- Luncheon adjournment --

---On commencing at 2 p.m.

THE CHAIRMAN: Order, please. Mr. Macdougall?

MR. MACDOUGALL: Thank you, Mr. Chairman.

CROSS-EXAMINATION BY MR. MACDOUGALL:

Q. Mr. Browne, my name is Graham Macdougall, appearing for Canadian National Railways, and if you would be good enough, I have a few questions here I would like to ask you about your brief.

You speak on the second page, in Paragraph 7, as follows:

"These benefits..."

And you have been talking about the benefits of service and competition which the trucking industry have brought to the nation's consumers and producers.

"These benefits can only continue and be extended if the trucking industry continues to expand and if the independent trucking industry exists."

Are you aware, Mr. Browne, that appearing before this Commission the President of the Canadian National Railways, Mr. Gordon, and also the Vice-President of Traffic, Mr. Hart, made very positive statements to the effect that Canadian National had no interest nor intention of endeavouring to extinguish the trucking industry or endeavouring to beat the trucking industry; that their sole interest was developing a trucking arm which, with its rail enterprise, would enable it to compete

not only with its major competitor, Canadian Pacific, which company has substantial highway services, but with the trucking industry as a whole. Were you aware those statements had been made?

A. No, I was not aware of those statements. I might say, however, --

MR. DRYSDALE: Do you have the reference there?

MR. MACDOUGALL: I have not the reference specifically. I could get it for you.

THE WITNESS: I might say that my feeling is whatever the intention was, that when Mr. Gordon was before the Parliamentary Committee, the Sessional Committee on Railways Canals and telegraph lines last year, there was some questioning on this particular point, and the part that bothered some of the Members of the Committee at that time was that if that statement were true, that the type of trucking firms that the Canadian National Railways were purchasing were really entirely separate from the railroad and were not to be run in conjunction with the railway but were competing lines, and in some instances long distance haulers, and that did not seem to fit in with that kind of statement.

Q. Did you recall his statement before that forum to the effect he was not interested in endeavouring to extinguish the trucking industry?

A. I have no doubt that he would not have

that particular purpose in mind, but I am not convinced that the results would not have that effect.

Q. You think the motives are perfectly all right, but you have some fear that the result of the action might not be as intended? Is that your point?

A. That is right.

Q. Now, just on that point, Mr. Browne, the Canadian Pacific has had trucking subsidiaries and trucking operations for a long while. You are aware of that -- in Western Canada?

A. Yes.

Q. Have you seen any indication of these fears that you speak of in connection with Canadian Pacific's truck operation in Western Canada?

A. I believe one cannot take just one or the other. But, taking the whole, with the number of large trucking firms in Canada at the present time, and with the number that I know of that the two railroads own or control at the present time, I believe that danger does exist.

Q. You do not point particularly to any evidence of this eliminating of the independent trucking industry on the records of the Canadian Pacific's operation in Western Canada in the last five or ten years?

A. Well, I say this, that whenever any large firm, which it would take a long time to

duplicate the services of that firm, that it must lessen competition to some extent, because I do not believe that a subsidiary company or a wholly owned company can force competitive rate adjustments that would be done by an independent company.

Q. Can you give us any examples that show these forces you are speaking of at the moment eliminating the independent trucking industry? Has there been any evidence that that is taking place up to the present time in Canada?

A. The evidence is that the Canadian Pacific Railway and the Canadian National Railway have acquired a large number of trucking firms and these trucking firms are not now, in my opinion, independent firms and therefore, while they have not eliminated the independent firms, there certainly is a lessening of the number of them.

Q. Do you know of any adverse effect that those acquisitions have had on the independent truckers?

A. I think at the moment they are all competing with other trucking firms, but the policy would bound to be subjected to the control of the owners of that company.

Q. I think it is fair to say that the company which owns a trucking company or controls it will have some effect on its policy, but I am interested in the independent trucking industry

which you have spoken of here which is a fairly large body of trucking operations both in Western Canada and Eastern Canada.

I wonder if you could point to any particular facts that would indicate that any situation has developed which indicates that the independence of the trucking industry is being seriously threatened?

A. In my opinion, it is being threatened every time one is purchased. Under the licencing set-up we have now, a trucking firm in each province, or most of them, must prove public necessity and convenience. When a railroad buys out an operating independent trucking company, it would be most unlikely it would duplicate it; that another licence would be granted to carry the same territory, and there is that much less segment of trucking in the area.

Q. Let me get this clear. You say if a railroad company buys out an independent trucking enterprise there would be a duplicate trucking licence.

A. I say it would be most unlikely there would be, and therefore the competition is not replaced.

Q. But as far as the public is concerned, just because a trucking company is owned by a railway, as long as it is there on its franchise rights, competing with other truckers on the same routes, is the competition by truck not still

there for the public?

A. Well, it depends on the circumstances. I would have to have a particular instance.

Q. Take a province where there is rate control. The rates of that trucker that is owned by the railway will be controlled the same as any other independent trucker. They will be competing one with the other. What difference would you envisage as far as the public is concerned?

A. I would feel there would be a possibility of unfair competition because of the vast financial resources of the railroad being used in that trucking firm in competition with others, particularly if the railroad were being subsidized.

Q. How would you see these vast resources being used?

A. Well, perhaps in unwarranted rate reductions.

Q. How far can you, under a regulated truck system, reduce freight rates by truck?

A. Well, mainly the rate controls are maximum controls, and the rate itself is not controlled except up to a maximum.

Q. There is no control on the truckers as to going below their variable cost?

A. No, there is no limitation on minimum rates.

Q. They could cut the rates as low as they

want to. You recognize there is regulation dealing with railways that pervent them from going below their variable cost?

A. Yes, and I believe that that should apply to the trucking industry.

Q. You would object, I presume, on that premise, to the practice which is used today in the trucking industry of what we call back-haul rates, which is carrying traffic for gasoline money, or something of that kind, at a very low rate. Because they have a good revenue return on the shipment in one direction they would take a commodity just to fill out on the back-haul for much less than the going rate for that traffic?

A. I do not believe goods should be hauled at uneconomical rates.

Q. You believe that carriers should carry the traffic at economic rates to return them at least variable cost and if they can full cost?

A. I am not willing to support variable cost. It must return all their costs on that service they are providing.

Q. Do you think it is possible for a carrier, either by rail or by road, to in every case obtain the full cost of transportation -- that is, the variable cost plus the full portion of the constant cost for the handling of that traffic for each segment of the traffic?

A. I can only say that I do not feel the

present way of arriving at compensatory rates or costs in connection with these things is a satisfactory one, and that we need a better system for determining that.

Q. Do you offer some advice to the Commission as to what the alternative to the presently known definition of compensatory rates might be? And the present definition of a compensatory rate is variable cost plus some contribution to overhead. Have you something that you can offer in substitution for that?

A. No, I have not.

Q. You feel, then, that basically in rate making, both rail and truck, that there is a distinct element of value of service in rate making that while neither medium should try to exact unrealistically high tolls, nevertheless, they should endeavour to get pretty much whatever the shipper is willing to pay for the movement of his goods? Is that your feeling?

A. My feeling is that the competition will bring the price down; will keep the costs down to a reasonable level, and they won't be able to get too much over their proper profit.

THE CHAIRMAN: I think we should know what Mr. Browne means by all-costs. You have used that term.

THE WITNESS: Well, I think I used as an example earlier that my own experience in the trucking

industry is this, that people will say, "Now, I have to pay certain licence fees and I have to pay certain insurance fees, and I have certain overhead expenses". And then, they say, "If I do one particular job, those expenses are going to go on whether I do that one job or whether I do not do that job".

I say, therefore, they are not taking into consideration all of their costs. If they do not take into consideration all of those factors and apply it to each individual job, I say I believe that is an unsound policy over a long period of time; that you cannot go on on that basis; that you must take into consideration all of those costs.

THE CHAIRMAN: What about investment?

THE WITNESS: Yes, and your investment. In other words, capital costs money and one must take that into consideration. I say every cost that is incurred must be taken into consideration. And, in the case of the trucking industry, it comes down to the miles travelled or some basis of that nature -- whatever you want to use -- but you cannot disregard certain costs and say they are going to go on "whether I move this traffic or not".

I believe there is an element of that, and I certainly do not deny it has been done in the trucking industry, and I believe it is done in the railroad industry, and I believe it is an unsound principle.

MR. MACDOUGALL: Q. This Commission has heard a good deal about costing, Mr. Browne, and have a lot of testimony in that regard. And, just to speak again of this point you are really, when the phrase is used "variable cost plus some contribution to overhead," what is meant is all the cost that vary with the handling of the traffic on a long term basis; which, looking at it from the point of view of a number of years, means more than just the actual costs incurred today, but includes interest and depreciation -- and such depreciation may vary on a long term basis on certain traffic.

And, as I understand your answer to the chairman, you would say that all costs would include these portions of investment and interest and depreciation which varied on a long term basis with the handling of a certain body of traffic?

A. Yes.

Q. I think probably when you use the term "all costs", you are really saying the same thing -- long term variable costs plus a contribution to overhead?

A. That may be. I think I have said all that I could say on the point, and I think my views now are clearly on the record on that point.

Q. The point is this, though. If you have certain traffic which -- say, sand and gravel

is an example of low-rated traffic on the railroad -- I suggest to you if the railroad was to attempt to get its all-inclusive costs from sand and gravel probably it would not move any sand and gravel and also you would probably agree that the trucker has shown no interest in moving sand and gravel except in very short hauls. I would ask you if we were to look for all-inclusive or fully distributed costs -- that is, complete cost, all cost -- from each segment of traffic, what would we do with things like sand and gravel?

A. I would only say this. That this becomes a very important aspect of national policy, because if you are going to haul some product at an uneconomical rate and lower than your cost of hauling them, obviously somebody else is going to have to pay that cost.

In this day, where we need to export from this country, an industry may be taking products -- such as our lumber industry, which is a huge export industry; they may have to pay more because we are hauling something at a too low rate. If something has to be done for those industries which cannot pay, it should be a matter for Government policy; it should not be a matter for the railroads to be able to decide that. It is too important an aspect of our national policy to be decided entirely by the railroads.

Q. You do not see anything bascially wrong

with there being a certain amount of cross-subsidization between various items of traffic handled by the railroad as long as they get their long term variable cost plus a contribution to overhead?

A. I do not think one industry should be subsidizing another, at least, without the public realizing it and without all the aspects of our economy considered. I do not think that is a job for the railroad.

Q. You have no suggestions as to how we might find out how this is happening?

A. My feeling is that if a proper basis is established so that the Board can determine what the costs are of hauling the various commodities then they will be in a position to know what is being charged and what subsidization is going on and whether or not a change should be made.

Q. What you are really saying is you think we should have more information about the costs of moving traffic, so the Board would have more information before it to decide questions of this kind?

A. I think it is too important an aspect of our national policy to be decided by the railroads alone. It is really a matter of Government policy as to whether one industry should subsidize another.

Q. You speak on page 3 in paragraph 12 -- you say:

"No longer can the industry..."

Which is the trucking industry --

"No longer can the industry be assumed to have a local or regional character ".

Do I understand your position on the trucking industry to be basically it is competitive with other trucks and with rails, water, and other forms of transportation generally throughout the whole of Canada?

A. It is potentially competitive on that basis.

Q. In many areas, I would suggest to you it is actually competitive as well as potentially? Is that not so?

A. Yes, over the greater part of the area, and over the very greater number of commodities, I would say that is true.

Q. For instance, in the movement between major centers in Canada, I think it is fair to say it is completely competitive between rail and highway carriers today?

A. Yes, except that I believe that trucking has been retarded in some areas, particuarly the Maritimes because of the Maritime Freight Rates Act.

Q. I see. Because of some Government policy with respect to subsidization of a certain element of the public, you feel there has been some retarding of the trucking industry?

A. I am not objecting to the public being subsidized. What I am objecting to is the railroad

being subsidized, or one chosen form of transportation being subsidized.

Q. Do you think that the Maritime Freight Rates Act is a subsidy to the railways?

A. It has that effect.

Q. I am sure the people of the Maritimes think it is a subsidy to enable them to bring their goods into the central Canadian market?

A. It eliminates their choice of a means of transportation. Where there is no choice of transportation, and there is no competition, a subsidy can well be paid on an uncompetitive rate and not really be a reduction. If competition exists in the first place, and the rates are brought down to the lowest possible level of competition, and then a subsidy is applied equally to all forms of transportation, then a genuine rate reduction is applied.

Q. Suppose you do get your rates reduced to this level which you speak of by competition, but one carrier is very close to us and his cost level is at the point where if he goes much lower he will go out of business, but the other has a considerable distance to go down before he goes out of business. Do you not think a payment of subsidy in that situation is just subsidizing the high cost carrier and the preferable thing to do would be to allow competition to apply to the point where the carrier with the lowest cost structure

would eventually get the traffic?

A. I am not suggesting we subsidize the carrier. I am suggesting we subsidize the shipper so he can use the means of transportation. Whether or not the subsidy is actually paid to the carrier is immaterial. The subsidy would be paid on behalf of the area or the people of that district that were wanting to subsidize it.

Q. I am suggesting to you on the illustration you gave there, if you allowed a subsidy there you would be allowing the high cost carrier to continue in business at rates below his cost level and it would be kept there by his subsidy?

A. I do not agree with that.

Q. You are not suggesting that the people of the Maritimes would prefer just to have a straight competitive situation and do away with the Maritimes Freight Rates Act; are you?

A. No, I do not think anybody would wish to do away with any subsidy which they are receiving.

Q. However, on that same page 3 you speak about the guiding principles:

"The same guiding principles should be followed in our treatment of highway transportation, railways, commercial aviation or pipelines."

Do I understand by that you are suggesting that the rules of the Commission, whatever they may be, should be the same for all these various carriers?

A. Yes, I mean there should be no chosen instruments and there should be the same regulations for all forms of transportation.

Q. Do you know today whether or not in the trucking industry, for instance, the rates that are in effect are always published rates, they are known to the shipper and the people of Canada in the trucking industry and the area in which the truck is operating?

A. No, there is not that regulation in every province. My own province of British Columbia the trucking industry is fairly well controlled; however, that is not true in all provinces and that is the reason I suggest it should come under a federal board.

Q. So you would have them in the same position as the railways that the rates would be published, the trucking rates would be published and they would not go below the cost floor, whatever the regulatory board should say, variable cost and something to overhead and the rates should not be lower than necessary to meet competition.

A. No, the technical details are something that the Board would have to work out. Certainly I think they should be subject to rate control but just what form that should take I am not ready to speak of in detail.

Q. At the present time the railways are under law required to have their rates compensatory as may be decided by the transportation Board and the rates should not be lower than necessary to meet competition. That is the requirement of the law as far as railways are concerned and I am wondering -- I just fail to see the fears that you express when the railway industry is controlled in that way and the trucking industry is not so controlled that the trucking industry is at such a disadvantage.

A. I do not think there should be any distinction between the railroads. I am not saying the present system is the best, that is something for the Board to consider when they have the whole of the industry to control. I am not satisfied that the present determination of what is compensatory is right. I do not think there is enough consideration being given to whether or not rates are compensatory. I do not think "compensatory" is defined properly and I do not think there are steps being taken to find out.

Q. Well, you are not suggesting, Mr. Browne, that the railroads make no effort to find out whether the rates are compensatory, do you?

A. No, I am certainly not suggesting that.

The railroads may decide to do something at less than a compensatory rate and I have no way of knowing.

Q. You do not know that they have ever done that, do you?

A. It would be a matter of opinion and I do not think there would be any point in expressing an opinion.

Q. I am just trying to get to the basis for your statement which is basically directed towards the interest of the trucking industry and the rail industry and the competitive forces which apply between the two and the regulation which should apply to both. The railroads are under an obligation by law to have the rate on a compensatory basis and not lower than to meet competition. I want to know whether you have any knowledge that the railways have not lived up to this legal obligation.

A. No. I have had information supplied to me by people in the trucking industry but whether their figures are accurate or not I do not know. If these figures had been submitted by an economist who had studied these figures it would indicate to me that some of these rates are at less than a compensatory level. However, I am not in a position to substantiate them and that is why I say it would only be a matter of opinion.

Q. And when you say your opinion is that these rates are less than at the compensatory level, are you speaking now of variable costs?

A. Yes, as they have been determined so far as the rate is concerned.

Q. But you have no detailed knowledge you can give the Commission on that point?

A. No. I have had certain information supplied to me but I would not want to stand behind their authenticity. If the Board was interested I could bring it before them for their consideration. I am not sure whether they have as much or more information than I have on that subject.

Q. I am sure that probably the information that you have would be in the hands of the shippers whose traffic would be moving under those rates or their competitors?

A. I do not know whether the shipper is interested in whether a rate is compensatory of not. A shipper is interested in the lowest rate and I do not think he would have any interest in that aspect of it.

Q. In any event, you agree with the general proposition that the regulations as they apply presently to the railway companies concerning the compensatory nature of the rates is a quite unrealistic or unreasonable rule and that it should apply to all transportation industries in Canada?

A. Yes. I do not say the exact working of the thing is what I agree with but I certainly agree with the intent.

Q. And you agree with the general

proposition that in the general search for business by the different transportation media in what we call the competitive area, there should be free competition to compete between the highways, railways and other carriers?

A. Yes.

Q. Now, the Canadian National has proposed to this Commission that in that competitive area that the regulation required should be of the minimum nature to keep competition as free as possible and that the public would be well protected if particular attention was obtained by a regulatory board to the non-competitive rates to be sure we are competitive and do not hold the rates down, that the rates are fair and reasonable in the non-competitive area. I am asking you whether you would agree with that general proposition?

A. Well, as a general principle I would say I agree with the last regulation, we have to have it consistent with the public interest.

Q. Now, at the top of page 4, you state:

"Monopolies can be established either through purchases of competing firms or through rate practices which lead to elimination of competition. The application of this principle requires national control over the acquisition of transportation firms by firms established in other transportation industries and also the right of one transportation industry to intervene in cases where the rates

established by his competitor may lead to elimination or weakening of the competition."

I heard you this morning in talking to Mr. Cooper expressing some fears, expressing the possibility of recreating monopoly and you would not agree with him that the actual day of monopoly in transportation passed when Canada had a network of highways from coast to coast so trucks could operate moving between the major centers.

MR. DRYSDALE: Perhaps, Mr. Macdougall, you could define "monopoly", because I believe Mr. Hart refers to a "functional monopoly"?

MR. MACDOUGALL: Q. I am talking about carrier competition in respect of monopoly. When you speak of carriers you are talking of one carrier, say the railroad, gaining control of the transportation of goods in a certain area. I suggest to you that with the advent of the highway that you have carrier competition by highway, either actual or potential, throughout the length and breadth of Canada and I wondered how you could possibly think of a monopoly being created by the railroad in those circumstances?

A. I have already pointed out the example of the Maritimes where trucking is behind the rest of the country, in my opinion, because of the impact of the Maritime Freight Rate Act and I say it could happen across the rest of the country and I think it can happen if the railways are allowed to go on without any restriction in purchasing truck lines.

Q. Have you the idea in mind that the railways are going to endeavour, by purchasing of the truck lines in Canada, to create a monopoly? In other words, knowingly or inadvertently?

A. I am not in a position to assess the methods of the railway. I am only saying what is happening.

Q. Take the Canadian Pacific, for instance, the evidence is fairly clear that the Canadian Pacific has no particular design at the moment for the purchase of any other highway enterprises. That came from their vice-president not so long ago. The Canadian National information to the Commission is to the effect that it is endeavouring to build up a trucking arm subsidiary to the rail enterprise and that it has acquired most companies it is concerned in but there are a number of others to be filled out in a network across Canada. However, they are not interested in acquiring trucks just because they are competitors. Is your submission designed to disprove that, that there is some design on the part of the railways to create a monopoly?

A. What I am saying is, I believe the railways have a legitimate interest in providing a truck line that is running in place of a branch line or where it is more economic to run by truck and road. But, when they set out to get a general network of trucks and rail across the country, they are getting into a different position of lessening the competition.

Q. So your objection is to the railways

getting into the long haul movement but you do not object to them acquiring truck lines to act as subsidiaries to rail?

A. Where there are definite advantages where they are not speaking of management of a trucking industry to the railroad.

Q. In long haul, the transcontinental field, there are many commodities which lend themselves admirably to long haul movement by truck either from the point of view of special service characteristics that may be inherent in the trucking operation or for some other reason. You are aware of that?

A. Yes.

Q. Does it not seem reasonable to you that the railway companies as a transportation enterprise might say that there is a certain portion of the market which is entirely directed to the long haul trucking business if they are going to ever acquire a fully integrated transportation system that they should not go into the long haul movement to share in that form of traffic which would not come to them in any other way?

A. I am not saying they should not share in it, but I believe the share is too big at this time and there is every indication that it will grow.

Q. You do not object to that share of the long haul traffic but you do not want them to get too large a share?

A. That is right.

Q. I would also understand that you are in

favour of the Canadian National Railway enterprise being as healthy as possible, in fact, anything done to improve its financial position you would be in favour of as long as it is fair and equitable.

A. I would not say "in fact", I would have to know what you had in mind before I make any comment on that.

Q. That is too broad a statement for you?

Just on this point, it has interested me to look on the facts which I think are fairly well known. They were put before this Commission, exhibit 48, inter-city revenue ton miles of freight in Canada and these facts that we refer to here are matters of general knowledge as well and that is the general transportation market, that is the volume of goods moving in Canada over the last ten years, 1948 to 1958 have been expanding, that the railroads' share have been diminishing and the pipeline share has been much increased and the highway transportation has been much increased. So, looking at the results of the last ten years of the ability of the trucking industry to obtain business, I suggest to you that despite such things as you have been speaking of and speak of in your brief, the rate practices of the railway, and in later years the acquisition of highway enterprises by the railways, that the trucking industry has been growing very quickly in Canada the last ten years, is that not correct?

A. I presume that those figures you are quoting also take into consideration the amount of goods

that are carried by the railways own truck lines?

Q. Yes, I think the D.B.S. figures take into account all traffic moved whether by rail or by independent trucker.

A. I would agree that the trucking industry was growing but that does not necessarily mean that the independent trucking industry was growing.

Q. Well, the trucking industry has been growing rather considerably in the last few months?

A. Yes, including the railway trucking industry.

Q. But in the Canadian National case, they did not acquire any outside trucking industry except their own express and their own subsidiary, Canadian National Transport Company until 1959 so leaving Canadian National out of the picture up until 1959 and leaving Canadian Pacific out of the picture except in their western enterprise which they have had for many years, the trucking industry has been an independent industry, on your definition, until 1959?

A. I would just keep in mind that the Canadian National had asked for $15 million and were actually authorized by parliament to expend $15 million dollars in acquiring truck lines. I would also point out the information put on the record by Mr. Sinclair as to what was owned by Canadian Pacific. I am sure everyone will agree they have a very substantial number of trucks in a very extensive operating trucking industry.

Q. Yes, I think they have a substantial

trucking interest but not one out of proportion with the Canadian Pacific enterprise nor is the Canadian National out of proportion with this enterprise, do you think?

A. I have not access to all the information as to how many trucks are in Canada and what the percentage is that is controlled by the Canadian National. I can only judge on the general knowledge I have of the size of the industry and what the Canadian Pacific holdings are and what the Canadian National has acquired and the money they have left to purchase more that was authorized by parliament. I think this matter needs very careful consideration by this Commission.

Q. Why do you suggest this Commission should investigate a matter upon which Parliament has decided that Canadian National should have financial help for acquiring certain trucking industries? Is parliament not supreme in the country and have they not decided the question?

A. They have decided the question but they have not decided for all time. I am not in a position to say what the mind of the government was in granting that amount of money to the Canadian National Railways. However, I presume it was on the basis of the fact that the Canadian Pacific had substantial holdings and it was only right that the Canadian National should be allowed to compete. However, that does not mean to say that the Commission should not consider whether or not the Canadian Pacific had too much of a trucking interest

in the first instance and, therefore, the argument in support of the Canadian National going into the industry is wrong.

Q. In any event, you do say it is a sensible method that if the Canadian National was able to compete then it should compete on all fours with its major competitor the Canadian Pacific.

A. I am not sure of that. In fact, the Minister of Transport in the last session of parliament indicated when he came back from the United Kingdom that there was a great deal more competition in the transportation field in the United Kingdom since the introduction over there of denationalization of the trucking industry. My feeling is that the acquisition of trucking industries by the Canadian National Railways is a form of nataionalization of that industry in this country and I am opposed to that policy.

Q. I see, so the government's policy in this connection is not compatible with your views on the matter.

A. The action that the government has taken is not necessarily decided as a long term policy, otherwise it would not have set up this Commission to investigate the whole matter.

Q. Well, I do not think we can agree that this Commission was set-up to investigate the Canadian National acquisitions in the trucking industry but, in any event, your views do not coincide with the public bodies who decided this.

A. I would not say that, because as I say, I do not believe the government decided on a long term policy when they made that commitment.

Q. Your suggestion, as I understand it, concerning regulation, while you have just told me that you believe in the competitive field that there should be maximum freedom to compete, nevertheless, you still have an indication in your brief that you favour some form of regulation of not only the railways but the trucking even in the competitive field. Why do you talk about need for regulation in the competitive field? The shipper must be the man we are looking after, is he not protected when there is competition without having regulatory bodies to say how he must establish it?

A. As I have pointed out consistently throughout the hearings, I submit there are a lot more things to it then just the rates. He could be protected as far as the rates are concerned but there are many other aspects which must be taken into consideration and, therefore, the regulatory bodies should be in a position to take into account all these factors.

Q. What would these other factors be?

A. Well, for instance, we have the regulations in so far as the amount of weight that can be hauled on trucks. We have, as I pointed out before, the fact of time may be a consideration and even though one has a lower rate the fact that another industry can do the job quicker is a factor. There are many such

factors which must be taken into account.

Q. But surely these are competitive factors, these are things which decide which transportation will get the traffic, whether he has a better service, moves more quickly and better rates he can offer the shipper. The shipper is looking for a variety of things, you can rightly say, not only the rate but presuming these things are free to apply by the carriers competing, why is not reasonable? Subject, only to the fact that the price must be compensatory, not lower than necessary to meet competition so there is no unrestricted cutting of rates offered to the public, what else is needed?

A. Because we have to have licencing in the first place.

Q. Yes, licencing, but that is a different thing. I am thinking of the shipper: he doesn't worry whether a man has a licence or not.

A. But I don't think an unlicenced carrier should be allowed to get in, because that has been the trouble in the past. You have had unlicenced operators in the piggyback, for instance, where there is nothing in our present regulations that covers that. There is nothing to stop anybody from shipping a truck to any point in Canada not bearing any of the obligations of the regulated carrier, whether motor transport or railway, and competing with both of them.

Q. Do you know the present policy of Canadian National is that only those highway carriers who have highway operating licences between two points are carried by piggyback on the railway between those same points?

A. I was not aware of that policy.

Q. Well, I can tell you that is the policy: no trucks move except those who have over the road licences.

A. But there is nothing that requires them to do that.

Q. Well, the control of the trucker, of course, is a control of the province, but getting back to the point you have just mentioned, and thinking

in terms of the shipper -- not of protecting the trucker -- but I am thinking of Mr. Smith and Mr. Jones who want to move their goods: what other protection do they need?

A. He needs the protection that they are responsible operators in the business and not here today and gone tomorrow. He needs continuity of service also.

Q. But from the point of view of service and rates to see he is given fair treatment in the handling of his goods, presumably we are going to have responsible operators in the field. Does he need anything more to protect him?

A. As I say, in the whole field of responsibility he has to be sure, if he is shipping goods on a C.O.D. basis, that his money is going to be returned to him promptly. These require regulation by a proper regulatory board.

Q. Can you think of anything else now besides making sure you have a carrier who is responsible?

A. At the moment I would not say there are not other things. Those are the ones that come to mind at this moment.

Q. Do you advocate the creation in Canada of something comparable to what has been in effect in the United States for the last number of years, where you have one body controlling the trucks and the railways, such as the Interstate Commerce Commission has been doing until recently?

A. No, I have indicated I haven't got a firm conviction on that. It perhaps could be done by the Board of Transport Commissioners, but I am not wanting to take that position. It may mean it would require another board as well.

Q. Are you aware of the fact this type of control of one board in the United States has not been satisfactory either to the motor carrier or the rail carrier, and a great deal of dissatisfaction has been expressed by both modes of carrier?

A. I don't doubt where there are controls there will be dissatisfaction expressed by somebody, but I am not saying I don't think their controls have not been satisfactory.

MR. DRYSDALE: What is your basis for that statement, Mr. Macdougall? Is there some authority, or is it an opinion?

MR. MACDOUGALL: I think it is a matter of common knowledge an Act was passed in 1958 to correct that situation -- the 1958 Transport Act.

Q. Are you familiar with that?

A. Yes.

Q. Which enabled the carriers to be much more competitive than they were before?

A. But there certainly is no comparison between the regulation in Canada and what has happened in the United States. There is a vast difference in between.

Q. I am trying to get at that point as to why there needs to be more regulation. The evidence before this Commission has been where you have competition you don't really need regulation except things to protect the shipper from the rates being too low and rate cutting between carriers so rates are lower than necessary?

A. The reason I say there needs to be more regulation is the fact that at the present time the industries are controlled separately. They can't appear before the same board when a matter comes up, and the argument has been if the railways are subjected to this control the trucking industry cannot appear unless they are willing to be under the same control, and if it has been necessary throughout the years to have these controls placed on the railway, then I can only say in fairness the trucking industry would have to be subject to the same control.

Q. How do you think it would help the shipper to have the trucking industry complain about railway rates, or vice versa?

A. I am saying where a segment of the trucking industry may be forced out of business by rate cutting, that would not be in the long term interest of the shipper even though he was getting a reduction.

Q. Wouldn't you think it in the long term interest of the shipper if one carrier is able

to carry his traffic at a compensatory, remunerative rate and the other is not, that it is in the interests of the shipper that the one who is uneconomic should not be in the business at all?

A. Yes, I agree with you on the basis I have stated that all costs are covered. I am not saying the rates should be kept at a point to allow the other one to stay there, but it does have to be taken into consideration whether or not when one is forced out of the business that the other is going to raise his rates and whether the other industry would take a long time to replace. Then I think the board would have to give consideration to that and judge each case on its merits.

Q. Your fear is if the railway is to reduce its rates to the point where the highway operator is forced out of business that the railway would then raise its rates to the detriment of the shipping public?

A. That is a possibility.

Q. I presume you would agree with me one of the great benefits of the highway transport industry to Canadians is the ability of a trucker to quickly get in the business. As soon as he can get a truck and get on the road he can get into business in a small way; and also his ability to get out of the business when he decides it is not economic?

A. On a long haul basis I don't believe

that is any longer true. The capital investment is too great to get into the long haul business on highway transport that is going to be of any consequence.

Q. But you will admit he has the ability to get into the business very quickly if he can get the down payment on a truck and get a franchise?

A. He has to be licenced, of course, and I feel if it were brought under a Federal regulatory board that it might not be so easy.

Q. On Page 6 you make a suggestion there concerning the head of the lakes, and the Lakehead as a St. Lawrence port, ~~and suggest~~ that the establishment of satisfactory loading and unloading facilities for trucks, as well as highway improvements, so that the economic benefits of the harbour can be felt as widely as possible. You are aware that at these ports the facilities which the railway company uses, such as trackage and sheds and so on are provided by the railway companies themselves, and I was wondering why you suggested that the loading and unloading facilties for trucks, as well as highway improvements should be established, I presume, at the public expense rather than being paid for by the truckers themselves?

A. Yes, I believe in those areas where the Harbour Board -- and they don't have the same policy in every port in Canada -- but in some ports the Harbour Board does the developing.

In other areas they leave it to private enterprise. I believe in those areas where the Harbour Board is doing the developing, or where private enterprise fails to provide something, then it is up to the Harbour Board to provide those facilities. There have been a number of complaints made by the Trucking Association in the loading of grain, for instance, that they were being charged higher rates on loading than rail were being charged, and those matters have already been before the Board of Transport Commissioners.

Q. Well would you suggest it would not be fair in those circumstances for the trucking enterprise that wants to operate through that port to construct its own road from the main highway down to the point where it wants to haul the traffic, and also the shed facilities?

A. I can only say the railways use lots of facilities provided by the Government.

Q. Yes, that is perfectly true but I think basically their shed facilities and trackage are provided by themselves?

A. I am not familiar with it all across the country, but certainly in Vancouver a good many of the sheds where they load and unload their freight cars are publicly owned sheds by the National Harbours Board.

Q. Yes, on the National Harbours Board property it may well be, but there are a good many

other areas where goods are loaded that are privately owned -- some are railway sheds?

A. Trucks do have facilities on their own property too.

Q. I was thinking particularly of the ports you speak of -- the Lakehead; it seems to me reasonable, if they are looking there for business, they should go in there and put up their sheds?

A. Because it has been the policy of the National Harbours Board to develop some of these areas, and I believe where they are doing that, facilities should be made available for truck transportation on an equal basis.

COMMISSIONER MANN: Mr. Browne, the National Harbours Board does not operate at Port Arthur and Fort William.

THE WITNESS: I realize that.

COMMISSIONER MANN: Well, you talk about the Lakehead and this discussion seemed to touch on the Lakehead.

THE WITNESS: Yes, I appreciate that.

MR. MACDOUGALL: Q. Page 7, Mr. Browne, you are speaking of the problem of subsidies and there are a few pages there on it. Isn't it right to say that in the last number of years the trucking industry has had a great expansion, almost an explosion, in Canada despite the fact there are some of these subsidies being paid and it has worked to their detriment, as you say?

A. I think we have already dealt with that subject, that it has increased greatly including the railway-owned ones.

Q. Yes, but that is despite the fact subsidies of various kinds and various interests have been paid?

A. Well it has not expanded greatly in the Maritimes where the Maritime freight rates is being paid.

Q. Do you think there is no highway carrier competition for the railway in the Maritimes?

A. It is much less than across the rest of Canada.

Q. Throughout the whole of the rest of Canada?

A. I believe so.

Q. I suggest to you there are points in Canada which probably haven't got nearly as much truck competition as the Maritimes?

A. Taking it provincially on a per capita per ton mile basis, my recollection is that they were a good deal less in the Maritimes as a whole than in any other province.

Q. Has the thought every occured to you that perhaps the Maritimers are happy to have it that way?

A. I don't think they are happier to be paying any higher freight rates than are necessary.

Q. I am sure they are not but I suggest to

you if they are getting good service that they are probably quite happy to have it that way?

A. Well, service is one aspect and rates is another. They may be happy with the service but I doubt if they are happy with the rates.

Q. Is anybody in Canada happy with the rates if he can get a lower one?

In Paragraph 29 you are talking again about subsidies and you say, "They should be clearly stated. It must be stated who is to be the benefactor of the subsidies."

I take it you are saying if a subsidy is granted you would not want it to be covered up so that it will appear to be something which it is not? You want it clearly set up as a subsidy to the farmer, or to the railway company, or to the trucking industry, or the shippers generally; is that what you mean?

A. Yes, that is correct.

Q. Why do you feel that is advantageous over some other form of payment -- or disguised form of payment?

A. I feel the public is entitled to know what subsidies are being paid and for what they are being paid because, in effect, a group of people may be paying subsidies for another and it may not be realized they are receiving another subsidy in another form through transportation. A subsidy paid to one group of people should be recognized as such.

Q. Take a subsidy to the farmer for the handling of western grain: your suggestion would be the subsidy should be accurately defined as to who is the beneficiary of the subsidy and what it is specifically for?

A. I don't know there is a subsidy being paid for that purpose.

Q. No, there isn't, but one of the propositions before this Commission is that because of the low nature of the rate on export grain that in lieu of raising the rate a subsidy should be paid by the Federal Government on behalf of the western farmer to reimburse the railways for their cost of carrying this grain traffic, and I ask you whether or not in those circumstances you think that the legislation which might provide for that, supposing it were to be ordered on recommendation of this Commission, should define it is a subsidy in respect of grain and in respect of the farmers' haulage of the grain to export positions?

A. That is right

Q. If that were so, and as I understand your submission, it should be made in such a way that the trucker could share in it if he wished to do so, if he could haul grain?

A. I believe my intention was to indicate I felt it should be paid to the Canadian Wheat Board who would be able to choose whatever form of transporta-

tion became available. It may not be beyond the realm of possibility that pipelines will become available for that purpose.

Q. Are you aware the Canadian Wheat Board does not deal in all of the products which you ship at the so-called Crow's Nest rates. It doesn't handle, for instance, flax or rye or the grain products which would be subsidized under such an arrangement?

A. That is true.

Q. Have you given any thought to the idea as to how the Wheat Board could deal with the problem when they only handle a proportion of the traffic?

A. In this instance if there were only a few carriers and a large number of farmers shipping, then it would have to be paid on a different basis. It could be paid to the carriers directly. It makes little difference, except for administration purposes, who the money is paid to as long as the purpose of subsidy is defined.

Q. And as long as the effect of it is produced?

MR. DRYSDALE: Could you clarify the amount of the grain that would be under the control of the Canadian Wheat Board? Would it be 50 per cent, 75 per cent or 80 per cent?

MR. MACDOUGALL: I would hesitate to give any evidence on that.

MR. DRYSDALE: There would be a considerable difference...

MR. MACDOUGALL: Wheat, oats and barley are under the Wheat Board.

MR. DRYSDALE: There would be a considerable difference in the problem of the subsidy depending on the amount. If 95 per cent is handled by the Wheat Board, then the balance of five per cent would not be too much of a problem.

MR. MACDOUGALL: I do not think I can give you any figures as to the breakdown, but certainly the amount not under the Wheat Board is quite substantial when the grain products are taken into account. I am not sure of the proportion.

Q. From the point of view of the trucker would you know whether they would be prepared to be put in the same position as the railway in respect of the handling of grain where the railway today must provide equipment for the handling of grain and are required by law to provide equipment on demand.

A. Perhaps if they were given the amount of land that the railway got at the time -- if that was taken into consideration, they may be very happy to.

Q. I don't want to get into that.

MR. SINCLAIR: That is a suggestion.

MR. MACDOUGALL: Q. I am just asking on this question of regulation again, and I may

be going back a little: you suggest they should be the same, and I say from the point of view of the railway they must provide equipment today for any shipper who wants to ship; they must provide accommodation for his traffic and handle all types of traffic whether they find it remunerative or unremunerative.

A. On that statement I would not want to agree. We were informed by Mr. Gordon he was unwilling to move piggyback trucks in the Maritimes, and he had no intentions of moving them, and if he didn't have to move them in Western Canada that he would no longer move them there either. I don't think they are in that position.

Q. I don't want to get into an argument with you about that, but you are getting on to an entirely different question. I will put it to you this way, that under the law we are required to provide suitable and adequate accommodation for the traffic offering. The railway has that obligation. How it discharges it is another question. But, the railway has that obligation and you are suggesting the trucker who should be put in the same position as the railway, and I am asking you whether the trucking industry would be satisfied to have such similar type of regulation which would say to the trucker, "You must provide accommodation for any traffic offered, and you must take the good with the bad. You must allow your truck to be used for storage

at the Lakehead, if you are going to carry grain to the Lakehead, until it is unloaded? Do you think they would be satisfied with that?

A. It would depend under what terms and conditions. If we had a $50,000,000 deficit in doing it and the Government was willing to pick up the cheque, it would be all right.

Q. Well, the Canadian Pacific is not in that position, and they have the same obligation.

A. That provision dates a long way back and the railway was given many concessions for that from which they are still benefitting, and it is something I don't care to enter into an argument on.

Q. You don't venture an opinion as to whether the trucking industry would be prepared to accept all the obligations placed on the rail carriers?

A. Not under that statement. If you want to detail the terms and conditions, then I might.

---Short Recess.

THE CHAIRMAN: Order, please.

MR. MACDOUGALL: Q. Just one last question on this matter of the subsidy that you were speaking of.

Do you, by any chance, know of the evidence given before the Commission by the Canadian Manufacturers Association. Mr. Paul appeared here on behalf of the Canadian Manufacturers Association, and it was his view that if truckers handled export grain or were to receive some assistance in the handling of export grain, that they should be under the same obligations as the railway company is under in order that the competition between the two of them would be on the same basis. Were you aware of that?

A. No, I was not.

Q. And I take it that, from your comment to me, that basically you would agree that two elements of transportation competing for the same business should be basically on the same general level in all respects if practically possible?

A. Yes.

Q. You told Mr. Cooper when talking about the railway uneconomical services, either passenger services or branch line -- as I understood it, it was your view that any that were uneconomical to the point that they could not support themselves by the traffic should be eliminated entirely if there was some alternate service to handle the traffic either freight or passenger, as a general

proposition?

A. That is right.

Q. Did I understand you correctly that where such a case was heard by the Board of Transport Commissioners, and they were to find that because of some overriding public interest or national interest, which would likely stem from the fact that there was no alternate transportation, or that it was not satisfactory or suitable that the service or line should remain, that you would be in favour of such service remaining, but that the railway company should be paid for the work it performs in providing that service in the national or public interest?

A. Yes, but it should be clearly defined why and on whose behalf they are being paid.

Q. So that the public would know exactly what is being paid and what it is for?

A. That is right.

Q. Would you agree with me, also, that if that policy were to be adopted that each of these subsidized lines or subsidized services should be reviewed periodically to see whether or not perhaps the traffic had not been able to pay to the point where the subsidy could be eliminated ?

A. I think it should also be considered whether or not another form of transportation would be more economical -- even if it did not exist at the moment, it might be more economical for the railway

to replace a branch line with a trucking or bus service, and if it was more economical, that would be a natural field for the railway to go into. And I think that would be one instance to the benefit of the public to have the railway in trucking or bus industry.

Q. And it might also be a benefit to the public to have those services performed by the independent truckers or bus operators who might be in the area seeking to make a living from the services they provide in that area?

A. Yes, although I think we had already agreed that this would be an instance where this other type of competition or service did not exist, so it would have to be a new service you are speaking of.

Q. Yes. Now, Paragraph 42, Page 10, you speak of --

"The failure of co-ordination and forward planning is perhaps most obvious in the case of so-called piggybacking, or joint rail-truck operation."

And, then, you suggest that certain regulation be effected to deal with piggybacking. What form of reglation do you see necessary in connection with piggyback operations?

A. Well, as I say, first of all, I believe that only licenced carriers should be able to use the piggybacking services.

Secondly, I believe that when changes are made and advantage of piggyback is taken that the industry should be assured that there is going to be a continuity of service at reasonable rates.

Q. Yes. Well, now, taking the first one, as I have told you that is the policy of, at least, Canadian National -- and I think the Canadian Pacific as well -- that only licenced carriers are carried, because it would seem unfair that someone could just buy a truck with no licence, and move it over one thousand miles over which he has no right to go.

A. Yes, but this would not only be in the case of the completely unlicenced carrier, but I think a private carrier would now be in a position, to, on that -- certainly there is nothing in any regulation that would prevent that kind of movement, that I can see.

Q. You would be against the private carrier having the right to move his traffic by piggyback?

A. Unless he was licenced and had to bear the same onus under regulations as any other licenced carrier had to do. I do not object to him simply because he is a private carrier, but he must bear his responsibility under the regulation.

You see, the fact is that throughout the years there has not been equal regulations between the for-hire segment of the trucking industry and

the private carrier. I believe that is another benefit that would come from a federal board. In most provinces, and particularly in the Province of British Columbia, throughout the years a private carrier paid a good deal less in licence fees than did a for-hire carrier. I am not complaining because of the discrimination between the carriers, but it also is a discrimination between shippers, because one person who is big enough to have his own carrier service is in a preferred position. A shipper who has to ship with a for-hire -- I do not see any reason why he should be in a different position.

Q. You do not think the man who wants to invest his own money in trucks to handle his own goods should be free to do that?

A. I say he should be free to do that, but he should pay the same licences and meet the same regulations and controls as the for-hire.

Q. He must have to meet these weight controls, just the same as the for-hire; he cannot exceed the provincial regulation?

A. He has had generally this advantage throughout the years: he has not paid as much in licence fees; he does not have to prove public necessity and convenience, because if he moves his own goods, he is entitled to move them.

I do not know whether that needs to be changed, but it should have consideration by the

Board who assumes responsibility for it.

Q. You do not think he is assuming a proper share of the cost of maintenance of highway right of way; you think the for-hire carrier is assuming more of the cost?

A. I believe that to be the case. The situation has changed recently in British Columbia. They have been brought on a far more equal basis than throughout the years, but there is not too much difference at the present time. I believe that uniform regulation across Canada is required.

Q. Piggybacking is basically what might be called a competitive deal in the transportation industry today; it is a competitive method of transport?

A. Well, yes, it is competitive between the -- there, it depends on what it is; there are so many plans of piggybacking. I don't know what you have in mind there.

Q. It has brought about the competitive forces in the transportation industry -- the piggyback type of operation -- to give a better service, designed more to meet the needs of the shipping public, and they like it because of the, particularly, the service aspects of it. Is that not right?

A. That is right, yes.

Q. And I was wondering whether you would not agree with me that since it is basically a competitive situation, that really needs little or

no regulation except for the point you mentioned, that the carriers who use it should have some over-the-road licence to go between point A and point B if they are going piggyback between point A and point B. You are not suggesting further restricting the use of the competitive deal? That is the point I am making.

A. Well, it would have to be taken into consideration. The rates that piggybacks are moving now is something different from what we have had in railway rates before, inasmuch as I understand the contents of a trailer are not taken into consideration as class rates or commodity rates. There is a mixture of freight in there. I think that is something that is charged with the responsibility; something we have to give consideration to as to what may or may not be the best.

Q. I got the impression from your submission that you are all in favour of competition; but, every now and again, there is something here about regulation and control, because it seems to me the more regulation and control you have in the competitive portion of business the greater becomes the problem of competing?

A. Before there can be a proper and fair competition, there has to be control.

Q. Why do you say that?

A. Because the railroads are in a position

in the piggyback business to have the means of transporting the piggyback trailers, and obviously they would be in a strong position to give themselves favourable treatment.

Q. You do not put any store by the provisions of the Railway Act which say we must not discriminate as between shippers; we must provide suitable and adequate accommodation for the trucker. It does not say we are entitled to put our own trucks on there; we must take them as they come.

A. We were told on the Parliamentary Committee last year by Mr. Gordon that he did not accept private trucks for shipment for the Maritimes.

Q. We are not talking about private trucks; just leave that out for the moment.

A. I am not talking about private trucks. I am talking about the for-hire segment of the trucking industry. They are not allowed to ship their trucks by the Canadian National Railways into the Maritimes, and I think that is one good example of why we need regulations.

Q. You think the Canadian National should be forced to take the for-hire trucker into the Maritimes?

A. I am not saying that. I am saying that we need regulation to determine whether or not that is the case.

Q. Do you agree the regulation should be designed to protect the shipper of the commodities?

Is that your view?

A. Yes.

Q. Do you think the regulation should be designed particularly for the protection of the competing carrier?

A. No, I do not know, but I think by having competing carriers in existence we are protecting the rights of the shipper.

Q. Why do you think some regulation is needed in respect of what trucks are taking piggyback into the Maritimes from the shipper's point of view?

A. Because I feel where there is a competing service, and people have made application to ship a truck by piggyback into the Maritimes and that has been refused -- obviously there was a need for that or that application would not have been made.

Q. Can you tell this Commission any shipper of the goods -- the man actually shipping the goods in the Maritimes who has said he cannot have his goods moved from the Maritimes, and he wants to have them moved by piggyback?

A. I am sure that the shipper who was referred to in the Parliamentary Committee last year was not intending to ship an empty truck. He had goods to move, or he would not have made the application.

Q. The shipper was a trucker who wanted to

move a truck?

A. Yes, and the truck was full of other goods. He was moving goods for a shipper.

Q. He was a for-hire trucker and he wanted to put his goods on the railways?

A. That is right.

Q. Can you think of any one person who said, "I want my goods to move via for-hire carrier and I cannot move them"?

A. I can only say there was a strong presumption there was such a shipper; otherwise, the man would not have wanted to move his goods on the railroad.

Q. I suggest to you the man was a trucker?

A. I do not say a trucker should be prevented from doing so. If he was a trucker he was not in the same position as a shipper.

Q. Have you any knowledge of any person or industry in the Maritimes that has been prejudiced in any way by the fact there is no Plan 4 piggyback in the Maritimes on Canadian National?

A. I believe that he is being prejudiced to the extent that the competition does not exist that should exist.

Q. That is your general view of the situation?

A. Yes.

Q. It would not surprise you to know that there have been no shippers -- not one -- that has

ever complained to the Canadian National that the service is not available to him?

A. I am telling you the one man changed his business from the Canadian National Railways because he was not allowed to ship his trucks.

Q. The one man you are speaking of is a for-hire trucker, a competitor of the railway?

A. He was carrying somebody else's goods.

Q. He can carry them on the road, if he wants to. I am interested in the man who ships his goods. I want to know whether or not you know of any Maritime person or industry who was complaining because he is not getting the service he wants from the Maritimes on the Canadian National?

A. He is not in a good position to complain when the C.N.R. does not have the service.

Q. You do not know a Maritimer -- whether it is Canadian National or Canadian Pacific -- I put it to you that you do not know of any Maritimer, person or industry, who has complained that he is not receiving the service he requires by railway or by truck?

A. I am saying there must be such person; otherwise the man would not have applied to move by piggyback.

Q. I do not believe we need to discuss this further. You are equating the person with the

trucker who wants to ship his truck. I do not think he has any place in the discussion.

A. I feel quite certain the man would not be shipping his truck for nothing. He wants to ship some goods.

Q. The Canadian National is not interested in the trucker; the Canadian National is interested in the Maritimer, the person or industry.

A. You assured me a little while ago that the railway was obligated to carry everything that came along on equal and fair terms.

Q. I am telling you any person or industry in the Maritimes who comes along and wants to ship his goods, that obligation will be met to the letter of the law --

MR. DRYSDALE: Unless he is a trucker.

MR. MACDOUGALL: This is the point I am making with you, Mr. Browne, that you seem to be arguing for the trucker. You do not seem to arguing for the person or the industry -- the so-called shipper in Canada.

Your whole argument seems to be directed to protecting the trucker. I am suggesting if this Commission did recommend what you are suggesting, the effect would be to place more restrictions on the railway and the trucking industry, and in effect the shipper in Canada will not be as well served.

MR. DRYSDALE: Mr. Chairman, I would suggest

Mr. Macdougall is taking an unfair interpretation of what Mr. Browne has said with regard to the differential between the shipper and the trucker.

THE CHAIRMAN: Let us define the meaning of the shipper. Who is the shipper?

MR. MACDOUGALL: I think, Mr. Chairman, the point is this: that there has been litigation to this effect, that the railway in discharging its obligation under the Railway Act is not obligated to take the goods of its competitor, but the goods of the public only. Our position is that we have no obligation to take the goods of our competitor.

THE CHAIRMAN: I think we have covered it well enough.

MR. DRYSDALE: If the shipper is the competitor, the CNR is not interested in the shipper.

MR. MACDOUGALL: It is not a question of Canadian National not being interested in the shipper; it is a question of the right of the Canadian National and other railroads in Canada to discharge its obligation to give service to the public.

MR. DRYSDALE: Provided it is for the benefit of the CNR.

MR. MACDOUGALL: Certainly, provided it is for the benefit of the CNR.

MR. DRYSDALE: And regardless whether the trucker happens to be a shipper; you are not interested

in the shipper.

MR. MACDOUGALL: Canadian National, as you well know, sir, is competing with the trucker -- that is, the trucker is with Canadian National. Each is interested in its own position.

MR. DRYSDALE: Mr. Gordon is already on record.

MR. MACDOUGALL: I am sure he put it correctly, if you read it in.

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Q. Now, on page 11 you make a statement, about eight or nine lines down in paragraph 43:

"... the federal government may be expected in the future to take more active interest in the establishment of common standards of vehicle regulation, a step which is bound to bring considerable economies to the operators, and benefits to the consumers."

What do you meant by that statement?

A. Well, I believe we have the situation now with the thing being regulated independently in other provinces, we have a great weight variation in one province in Canada but we are still the same in all the rest. Where the federal government is contributing rather heavily to the financing of the Trans-Canada Highway they probably would have consultation with the provincial governments to try to establish uniform weights across Canada.

Q. I see, you are referring there particularly to the uniform weights across the whole of Canada for all highways?

A. Yes.

Q. You speak on page 13 -- you are talking here again about agreed charges and competitive rates and the suggestion in paragraph 50 is that the agreed charge signed by the railways with the breweries in western Canada for the haulage of beer had the effect of putting two highway enterprises out of business. Do you have any particular information upon which you

made that statement, Mr. Browne?

A. Yes, as I recall I heard from these people at the time. I had made a speech in the House of Commons, I believe, which prompted them to send the information along to me.

Q. You are aware of the fact that the industry itself approached the railways with respect to the making of that agreed charge and that the information which we had was that they were dissatisfied with the service being provided and they intended to change it either to trucking the beer themselves or handling it by rail. If the rail could give them a standard rate they would go by rail rather than handling themselves.

A. I do not know the details but I do know two people went out of business because of the agreed charge.

Q. My information is that the reason was because of the dissatisfaction with the service and the decision of the industry to go to rail on an agreed charge or their own trucking and as a result of free negotiations this was the result.

A. But my objection to the agreed charge, it can be signed up to the amount of 100% which means the situation is unchangeable. If the contract was signed today to handle goods at a specific rate it may be others would be in a position to say "we will do it at a lower rate" but when you sign an agreed charge obligating the shipper's goods 100% for a year you do away with that possibility. If they are big firms and cannot be

duplicated it means the competition is eliminated for some time to come.

Q. You think that is a bad thing, do you? You think it is a bad thing to have negotiations between the two parties, a railway and a industry regarding handling of their traffic and if the two are to come mutually to an agreement to handle their traffic in a certain way, because it would affect some other carrier, you think that is a bad thing.

A. No, I think it is a bad thing for this reason; it ties up the traffic 100% and in a good many instances it does away with competition and that competition cannot be easily duplicated and there would be nothing to prevent the rates going up at that time. Secondly, as I say, it prevents any further competition in the field because if though the competing carrier was able to go back and offer a still lower rate the shipper would not be in a position to accept this because he is now bound to ship by rail.

Q. In presuming the facts I have given you are correct, and I think they are, would it not be fair to say if the shipper was dissatisfied with the shipments over the one year he would do what he told us he would do, truck his own beer. Do you see any disadvantage by the fact he has tied up a part of his business with the railway for a year.

A. It may be true in some instances but certainly not in all. All shippers when shipping under agreed charges would not be willing or able to put in a

trucking operation.

Q. But you are aware the agreed charge -- each agreed charge is a matter of negotiation between the industry and the carrier.

A. Yes, but it ties up the business for at least a year and it eliminates competition which was very effective so they would not be able to have a lower rate and at the end of a year it is most unlikely that that competition would exist and, therefore, the railroad would perhaps be in a position to set whatever rate they wanted.

Q. Most of the larger truckers in Canada have been in business much longer than a year; some of them have been in business for twenty years or more.

A. That is true but some specialized types of hauling equipment has not so many uses and even if a carrier is in business for a few years and the carrier may remain in business, it means he must be able to keep that specialized type of equipment to have it available for dealing if the business was open for soliciting once again.

Q. There is nothing to prevent him, the highway carrier, from having an agreed charge or an agreed contract rate with a shipper if he wants to negotiate one.

A. I would not want to make that statement. I do not know whether a carrier would be in controvention of the Combines Act. I am not in a position to state that but the railways are able to do that by virtue of

the Transportation Act. However, the Transport Act does not apply to the trucking industry, the agreed charge is nowhere defined in any trucking legislation but I think there is a good possibility that they could be charged under the Combines Act if they were to go into a field of that nature. There are no such contracts that exist, to my knowledge.

Q. You never heard of a contract between a trucker and a shipper to carry goods by truck?

A. Under an agreed charge.

Q. Well, a contract rate, that is all an agreed charge is, whether you will handle or not handle a portion of the traffic moved, 40% or 100% or 10%?

A. Obliging the shipper to ship 100% by truck.

Q. The agreed charge is 90% and you do not know of any contract in your part of the country ---

A. I am not in the position to say. I know my own firm has no such contracts, I do not know of any that are signed where a shipper would be obliged to ship 100% of his goods by certain trucking company.

Q. I suggest to you there are many contracts of that type in Canada generally known as contract rates to move perhaps 50% or 80% or 90% of the traffic, whatever they agree on.

A. I do not know of any specific instances. Perhaps you could tell me of one specifically.

Q. I cannot tell you of one at the moment

but it is general knowledge in the industry. Speaking for the moment on the stability of piggyback rates which you spoke of on page 14, section 53(1) of the Act, I would ask you whether you are aware of the obligation that I have spoken of earlier on the railway company to provide accommodation for handling this type of traffic. Having gone into the piggybacking arrangement, it is your suggestion that the railway company could just back out of the piggybacking arrangements and leave the truckers high and dry. Is that your first point?

A. Yes.

Q. I suggest to you that the Railway Act, section 315, does provide the stabilities that you require.

MR. DRYSDALE: What section is that?

MR. MACDOUGALL: Section 315. This requires that facilities be given for traffic and since this piggyback traffic is being handled one way we have the obligation to provide the equipment and we are subject to complaint if we stop it. In any event, the carrier has an ability to handle it by the alternative road or highway.

A. Yes, that is true.

COMMISSIONER MANN: This is a case where the trucker would be a shipper again?

MR. MACDOUGALL: That is right.

MR. DRYSDALE: No obligation then.

MR. MACDOUGALL: Q. Putting on the railway

all the obligations that he has upon him at law to get the goods once he has offered himself to carry that type of thing. Just one word on page 15 where you are speaking again of this problem of monopoly which you express as being a very real threat in respect to the acquisition of trucking companies by railways. Are you aware of the evidence given by the witness for the province of Alberta, Dr. Hu Harries to the effect that while a few years ago he would have had some worries about the railways acquiring trucking interests that they might create an monopoly, today he could see no harm in it and no possible likelihood of there being any recreation of real monopoly. Did you, by any chance, hear all his evidence?

A. No, I did not.

Q. And also that of George Paul of the Canadian Manufactures Association and he gave testimony to that effect generally, that he did not fear monopoly by the railways getting into the trucking industry generally because of the facility with which truckers can go into operation and get out of operation, the existence of the highways and so on in Canada.

A. I dispute that statement that it is easy to get in and out of the trucking industry because of the higher capital investment that statement is no longer true.

MR. DRYSDALE: Mr. Chairman, I do not want to interrupt but I think in this line of questioning the proper way to do it is to read the passage that is

referred to by Mr. Paul rather than have Mr. Macdougall's interpretation of it and ask Mr. Browne if he agrees or disagrees.

THE CHAIRMAN: Well, Mr. Browne does not agree.

MR. MACDOUGALL: I saw all those transcripts and I thought ---

MR. DRYSDALE: You did not make any reference to where it was.

MR. MACDOUGALL: I thought that he had been through them and knew where it was. I am not trying to trap the witness in any way and I hope in putting a question if I misinterpret the evidence the Commission will correct me.

MR. DRYSDALE: There is no reflection on Mr. Macdougall, I am sure he is giving a fair interpretation but the difficulty is to have the witness' interpretation of what the situation is and on top of that we have Mr. Macdougall's interpretation in asking Mr. Browne if he ---

THE CHAIRMAN: Well, he has not read Mr. Paul's evidence.

MR. MACDOUGALL: In any event, he says he does not agree with that proposition. I think that is all, thank you.

CROSS-EXAMINATION BY MR. FRAWLEY:

Q. Mr. Chairman, I just came in and I have

just a very few questions. Mr. Browne, I want to say first that I compliment you on this brief because certainly I think the position of the independent trucker should be stated to this Commission. I think this is a good complement to the brief presented some months ago by the Canadian Truckers Association. I do not mean by that that this is in any sense secondary to that brief but I feel you are to be complimented on presenting the point of view of the independent trucker. I just hope you do not have too many constitutional difficulties in your way. And now, just for clarification I would like to ask you -- Mr. Brazier suggests that I tell you who I represent but I think you know that I represent the province of Alberta. Mr. Browne, at the top of page 4 you say there:

> "The application of this principle requires national control over the acquisition of transportation firms by firms established in other transportation industries ---"

Is that not the subject matter approximately of Mr. Chown's bill ?

A. Yes, I pointed out to the Commission earlier that I had seconded a bill which we drafted last year primarily for the purpose of bringing up discussion on that subject. We did not intend it to be a final document on the subject but to bring it to the public attention.

Q. And the last phrase in the same paragraph:

"... and also the right of one transportation

industry to intervene in cases where the rates established by its competitor may lead to elimination or weakening of the competition."

That is pretty much the subject matter of your own bill that was introduced last session?

A. Yes. The two bills have now been introduced before the Commission this morning.

Q. They are on the order paper, I suppose?

A. That is right.

Q. And if you wish to inform the Commission otherwise you may refrain, but is there any intention of re-introducing these bills again this session?

A. These bills have been introduced at the session but I do not know at what stage of the session they will be introduced or whether I would proceed with them. My feeling was, in my submission to the Commission this morning, that had they been arrived at last session it was not my intention to proceed with them without at least presenting my views to this Royal Commission.

Q. On page 6, paragraph 23, you say:

"For example, the increase in the importance of Lakehead as the St. Lawrence port must be matched with the establishment of satisfactory loading and unloading facilities for trucks ---"

My understand is that there is a great deal

of progress made already in that respect at the Lakehead, that the new terminal will have facilities for loading and unloading of trucks.

A. Well, I had heard a number of complaints made that there was not going to be facilities there and that is the last information I have.

Q. I must say my information was to the contrary, that Mr. McGee of CTA, I think he was not the only one who gave me that but they are actually, in the construction of that terminal, designing it so there will be facilities for the trucks. I do want to call attention to what you say in paragraph 35 on page 9 where you say:

> "...there is no better, and in the long run, no cheaper, solution to the problem of high rates, and/or inadequate service, than competition."

I just want you to keep that in mind as I go through. Towards the end of the brief I want to call something else to your attention and if you will now turn to page 11 where you are talking about what you call the regulation relating to Sunday operation, that is the Lord's Day Act?

A. Yes.

Q. And I am wondering if you are aware that in Alberta recently there was a decision which I must say was favourable to the truckers which set aside a conviction of a trucker for operation on a Sunday. Are you aware of that?

A. Yes, I do not have the details of it but I do recall seeing that in the newspapers. I think perhaps I had written this brief before that but I think the situation still needs to be clarified and some board empowered to make decisions on that kind of thing which need to be instituted.

Q. Well, probably in the interest of saving the introduction of a board as long as I can, I would like to call your attention to the fact that the Lord's Day Act is there and I do not think the truckers should have any difficulty in carrying on the service on Sunday just as the great big brother carries on on the rails and with that principle I agree.

A. I do know the Act has been interpreted in that way and many people have been charged with operating on Sunday. My understanding of the way the Act has been applied throughout the years is unless it is a perishable commodity it cannot be transported over the highways on Sunday. That has been the interpretation that has been placed on the Act throughout the years.

Q. Well, let us assume that is quite right, I was only pointing out the Alberta decision which may not have gone very far. I do not want to press it any further than I should press but I do suggest to you that the place to take care of your complaint is by an appropriate amendment to the Lord's Day Act. Would that not take care of it to place the long haul trucker or any sized trucker on a par with the rail carrier?

A. Well, my opinion is that the whole of the trucking industry needs to be brought under federal control and it could be dealt with by a regulatory board -- whatever board they are placed under.

Q. I suggest to you that the Sunday aspect does not need to have a great big federal motor carrier board set-up just to look after the Sunday side?

A. No, I am not suggesting that, but I think it is one of the things the Board could deal with.

COMMISSIONER BALCH: Mr. Frawley, you are not saying there is any comparison between the railways and trucks operating on a Sunday? Would you have a comparison -- I mean for the travelling public?

MR. FRAWLEY: You mean the individual -- the personal passenger?

COMMISSIONER BALCH: Yes, that is right.

MR. FRAWLEY: Well, no; I am just speaking from memory, but I think the inter-provincial and international busses operate on Sunday just like the trains.

COMMISSIONER BALCH: That is right, but if you are going to attempt to throw the highways wide open, which will eventually come to that if they get legislation, you will have these highways loaded with trucks so the ordinary Joe with a car will not get the opportunity to go out on a Sunday. You are not backing up this member of parliament from Ontario who said, about two years ago, that if the trucks got in the way let the fellow get off the highway?

MR. FRAWLEY: Well, if I recall, he was more than a member of parliament of Ontario. But, I will say no more than that. He did not like the idea of a big truck coming down the highway and running at him on a Sunday afternoon, but I do not suppose it is any more unpleasant on a Sunday than on a Tuesday.

MR. SINCLAIR: Except that people are at work on a Tuesday.

COMMISSIONER BALCH: That is right. Another thing, do you agree with the interpretation of the judge handing down the decision in Alberta?

MR. FRAWLEY: I do not know that he was a judge. He was a police magistrate in Medicine Hat.

COMMISSIONER BALCH: I guess he was.

MR. FRAWLEY: I think it is well to identify these things.

Q. Now, on page 13 you are referring to the consequences of that agreed charge made between the breweries and the railways, and you refer to two trucking firms, Breweries Transport Limited and Northern Brewery Transport Limited. Do you know where those two concerns operated?

A. I have the information at my office. I do not have it available with me at the moment.

Q. I just wondered if you knew the names of the for hire truckers in Alberta who were put out of business through the making of that agreed charge: do you know?

A. No, but I expect it has great

repercussions all through western Canada in that regard.

Q. Yes. It is quite true, of course, as Mr. Macdougall pointed out, that a good deal of the beer was being carried out of the breweries and to the warehouses by the trucking subsidiary of the brewing company; you are aware of that?

A. I was not aware of that.

Q. But it is true, as I understand, that some for hire truckers also engaged in the carriage of beer, and of course that was put an end to by the 100% agreed charge?

MR. MACDOUGALL: 90%.

MR. FRAWLEY: Q. Well then, 10% was left -- that would be the small beer, I suppose. Mr. Browne, I am interested in what you say on page 13 where you are urging that a way of dealing with the problem is to simplify the appeal procedure with respect to agreed charges, and I am wondering -- because you agree that the present appeal procedure is pretty unsatisfactory?

A. Yes, in my opinion it is unsatisfactory.

Q. Yes, and for what it is worth, in my opinion too. Now, Mr. Browne, have you given consideration to the merit of returning to the former procedure which would require the Board to first approve these agreed charges before they came into effect? Would that not be even better than simplifying the appeal procedure?

A. No, I do not believe so because I do not think the intention is to prohibit the railways

or to delay them in going ahead. If it is a proper charge I think it should be able to put it into effect. I think it will be a matter of opinion, and I do not think the railways should be stopped for a matter of months so that a shipper would be delayed from getting the benefits if it is a legitimate one. But, I do think if it is not a proper rate there should be appeal procedure provided.

Q. Well, the effect of the appeal would be to set aside the agreed charge?

MR. MACDOUGALL: Not necessarily.

MR. FRAWLEY: Q. That would be the objective of the appellant?

A. Yes, but it would not prevent the shipper from taking advantage of the rate if it were a legitimate one.

Q. You would be satisfied with the ordinary appeal under the Railway Act rather than a return to the prior practice of requiring the approval first to be granted by the Board?

A. Well, I have stated that I feel the Board has to give more consideration as to whether rates are compensatory, to defining what compensatory rates are, and to defining a proper rate. There have been very few occasions where the Board has questioned the railway as to producing any figures, and I believe more consideration needs to be given to that aspect of it, but at the same time I do not feel the shipper should be delayed from getting the benefit of a lower

rate.

Q. You think there would be delay in requiring prior approval by the Board, and you do not like that, but you would like the procedure simplified whereby you could get the Governor in Council, or some other body, to upset it later?

A. Yes, I think the appeal procedure at the present time is practically non-existent. There has been no appeal every prosecuted under that clause, and I believe it would be not too much easier, but it would be better than allowing an appeal to the Minister.

Q. You say there was no sucessful appeal -- there were attempts?

A. I was not aware of the fact any had been made.

Q. Oh yes. If my friend Mr. Sinclair will allow me to give evidence, I tried the procedure and I agree with you that it was pretty inadequate.

Mr. Browne, on page 14, in talking about piggyback service, I would like to clear up something that has me completely confused. You say in the second sentence of paragraph 2:

"If this condition is not met -- and it is possible that it can be met only through legislative changes -- then uncontrolled and ocasionally unreliable non-licenced operators or private carriers ...", and so on.

"Private carriers" I understand. "Unreliable non-licenced operators" I do not understand. How can

there be such a thing as a non-licenced operator?

A. My understand is that there would be nothing to prevent anybody from putting the truck on the railway in Vancouver, assuming the railways would accept it, and taking it to some other point in Canada. He is not travelling over the highway and he would not need to be a licenced operator. There is no legislation I can see that would require him to be licenced.

Q. "Unreliable", I do not know what you mean by that, but we will let that go. But, "non-licenced" -- you cannot take your truck out and travel ten feet without a licence?

A. He would not have a highway licence. He might be licenced in the city of Vancouver and in the city of Calgary, and it go and operate in both of those cities and have the effect of an inter-provincial carrier without being licenced.

Q. That is exactly right. In other words, take Dench of Canada operating from western Canada and owned by the Canadian Pacific Railway Company: they are now carrying on quite a large business.

A. I believe so.

Q. And they can move these trailers from Calgary to Edmonton without a licence from the Department of Highways at all.

A. In so far as I know, there is no regulation about that.

Q. That is right. They move the goods from the warehouse in Edmonton to the ramp at the team tracks,

or whatever it may be, and put that trailer that has a city of Edmonton licence on it and take it down to Calgary and obtain -- and, of course, they would have to have licences in both cities -- and take it off the ramp and deliver that right at the destination in Calgary, and without any highway licence at all. You understand that can be done?

A. That is my understanding of the present situation.

Q. There is only one other matter I want to ask you about, and that is at the bottom of page 16 where you say:

> "The basic principle, from which all the recommendations follow, is the belief that the best, most impartial, and most efficient regulator in transportation, like in any form of economic activity, is competition."

It was because of that I called your attention to something you had said very much like that in paragraph 35; holding to that view, as you do, Mr. Browne, I take it that you do not favour this business that is sometimes called the regulation of entering into the trucking business?

A. Do you mean there should be no restrictions whatsoever -- that anybody would be allowed to go into the trucking industry? I believe every operator has to be licenced and meet certain conditions.

Q. He has to have a licence plate and obey

the weight instructions, and he has to see he has a proper insurance for his financial integrity, but he does not have to have any franchise to enter the business, as it were -- that is what I call it, and some people call it the regulation of entry. I take it you would agree your commendation of competition as the best, most impartial and most efficient regulator means that you do not favour these regulations which require the trucker to become franchised?

A. No, I would not say that would necessarily follow.

Q. If competition is the best and most impartial and most efficient, how can it be improved upon by having something that says he has first to go to some little highway traffic board and get a licence?

A. Because a shipper has to be protected to the extent he should be assured of continued service, among other things and therefore we do not want people going in today and out tomorrow, and there has to be some assurance there is business there and that there is some necessity for his service.

Q. I will only ask you one more question, Mr. Browne; have you heard of any shipper in Alberta, big, medium or small, who has complained about the continuity of his shipments in that province?

A. I am not aware of any.

Q. We have not got any regulation in that province. Thank you very much.

MR. SINCLAIR: I have no questions, Mr. Chairman, in view of the questions put by Commission counsel and my friend Mr. Macdougall.

BY COMMISSIONER BALCH:

Q. I just have one question, and that concerns the Lord's Day Act which Mr. Frawley was discussing with you. You do not say it here you are in favour of repealing the Act. It just looks to me like a statement. Do you think the restrictions should be taken off -- speaking from the public side of it and not the railway's point of view?

A. It does seem to me this is something that would add to freight rates by making it more difficult to operate. It is something I am pointing out as another of those things that need consideration, and it would have to be decided which is more in the public interest, whether helping to reduce freight rates or helping to reduce traffic on Sunday -- whether that would be in the public interest. I am in a position to know what is being added to the cost of transportation by the fact they cannot operate on Sunday and I think the Board would have to consider what handicap that is and whether or not it would be more, as I say, in the public interest to have that changed or whether it is not a serious handicap.

Q. Would you know, although there are restrictions at the present time for perishable goods

and so forth, that that is not being strictly adhered to across the country?

A. I understand it is only where an information is laid by somebody that firms are prosecuted, but nevertheless, they are subject to the control of it, and I think in most instances the companies refrain from operating on a Sunday so they do not come in conflict with that Act. I do not think anybody should be in the position of having to violate the law to operate his business. He should either be operating or not, and the law should be clear.

Q. Can you visualize what the highway would be like on a Sunday if they had the restrictions fully lifted -- with the deaths we have at the present time -- what it would be like if it were like week days?

A. Well, trucks are no involved in accidents as much as cars. The drivers are experienced and very safety conscious on the highways and I do not think they add that much danger to it.

Q. No, I do not think the truckers themselves, but the congested highways.

A. It may be they should be restricted to certain hours. Sunday takes in 24 hours, and there is no reason I can see why they should not be able to travel on Sunday night. It is the practice of truckers to operate at night on the highways, and there may be some halfway measure there.

Q. They cannot start at midnight on Sunday -- or is it midnight?

A. Yes, I think they can start after midnight.

BY COMMISSIONER MANN:

Q. Most of the questions I had in mind has been asked by counsel, but I do have one. You advocate on the whole that the federal government should plan transportation investments -- that is your representation?

A. Yes, sir.

Q. And the purpose of that is so that there will be no unnecessary expenditure of public money?

A. That is right.

Q. When you had your discussion with Mr. Cooper you dealt with this point at page 9 in paragraph 34 and I just want to draw your attention to this:

> "If the disadvantages of the areas of Canada which are located far from their markets or supply sources are to be diminished, the way to do it is through an aggressive and planned program of cost cutting investments, since by this method the source of the problem -- high costs of production or distribution -- is attacked and not its manifestations."

What kind of investments by the federal government do you have in mind would cut costs of distribution?

A. Well, as I said, I think in many instances goods could be manufactured in the area rather than be brought in in the first place and I think in some instance it may be that a highway would cut the costs compared to what we have at the present time.

Q. And if the state built such a highway it would upset the competitive balance, would it not between various carriers?

A. It might do, yes.

Q. So therefore it would have to look very carefully in its construction of highways to the effect such highways have on competitive agencies of transportation?

A. That is true.

Q. In your federal investment planning do you see any need for extremely close cooperation between the federal investment planning body and the provincial authorities, particular with respect to highway construction?

A. Yes, I would think that would naturally follow, and that there is a good deal of cooperation now when we have a cost sharing arrangement on the Trans-Canada Highway.

Q. Under such cooperation the federal investment planning board might very well find its planning efforts frustrated?

A. Yes, that is true.

MR. DRYSDALE: Mr. Chairman, there was no re-examination, but I would like to make a statement from the point of view of clarification .

I should state, first of all, Mr. Chairman, in raising this particular problem that I am sorry to have to do it now in the form that I do it. I should, by way of explanation, state that I was not retained by Mr. Browne until in the early part of last week and Saturday was the first opportunity I had to go over the material in the transcript and again this morning shortly before nine o'clock. was the first opportunity I had to discuss this particular matter with Mr. Browne. I am referring specifically to the point raised by Mr. Sinclair at Page 10,750 in the transcript on May 2nd, 1960, volume 60. At this particular time he took objection to the fact that Canadian Trucking Association was going to introduce a new Highway Transport Act and he stated:

> "So therefore at this time I rise to object to the Commission that in proposing to introduce evidence and documentation, including a new highway transport act, the Canadian Trucking Associations are asking this Commission to exceed its jurisdiction, which is severely limited by this order in council. This order in council does not vest in this Commission, in my submission, respectfully,

jurisdiction to inquire into transportation in Canada; it restricts it to an inquiry into railway transportation in Canada and matters relating thereto. "

These were words of Mr. Sinclair, and in fact he goes on at Page 10,751, and I am taking this in the middle of the paragraph. If the material which goes before is relevant; if I am being unfair to Mr. Sinclair, I would ask him to raise it.

At Page 10,751:

"Indeed, although they are here as Canadian Trucking Associations, their proposed legislation covers the bus legislation, and surely their name shows that they are not speaking on behalf of the bus operators, and the bus operators, naturally, expect not to be here, and in my respectful submission their jurisdiction does not extend to air transportation in Canada or to pipeline transportation in Canada; it does not affect all aspects of transportation."

Then, Mr. Chairman, further along in commenting on the effect of the Commission appointed by P.C. 6033 the Chairman said:

"Mr. Sinclair, I haven't a copy of the order before me. We, of course, reserve our final ruling on the matter, but I can say that the submission somewhat surprises me, as I felt we had

pretty wide scope in our inquiry in the matter of transportation and that we would require generally to deal with transportation policy as a Canadian matter. However, we will reserve --"

And then, of course, Mr. Hume replied to that particular statement.

Then, there was a ruling made by the Commission which I will refer to. This is in Volume 61, May 3, 1960, Page 10,918 and Mr. Cooper is speaking:

> "The Commission has considered the objection made yesterday by Mr. Sinclair and supported by Mr. McDonald to the admissibility of certain evidence, including a proposed highway transport act of Canada, contained in the submission of the Canadian Trucking Associations.
>
> The Commission has decided that the evidence objected to, including the proposed highway transport act of Canada, is relevant to this inquiry and is therefore admissible. The Commission so rules."

The point that I wish to raise, Mr. Chairman -- and I do so in order to have this matter on the record because I think it is fairly important, and I do so with no reflection on Mr. Sinclair -- (I might say that at noon time I advised Mr. Cooper that I was proposing to raise this particular point and I was able also to mention it to Mr. McDonald and Mr. Macdougall. Mr. Sinclair was not present at

the time, and in fact I have not met Mr. Sinclair, but I understand he is the gentleman in the blue suit at the far end.) -- I raise this point only in the event that objection be taken that no notice was presented of my intending to raise this particular matter.

However, there is a precedent because Mr. Sinclair, reading the transcript, apparently did not notify Mr. Hume.

THE CHAIRMAN: What is your point?

MR. DRYSDALE: The point that I wish to clarify, first of all, Mr. Chairman, is as to what capacity Mr. Sinclair is appearing in the present hearing. For that, I would refer to the first volumne where the hearings were held at Ottawa September 17 and 18, 1959, and I should point out that when counsel were identifying themselves and advising the Commission as to who they were representing Mr. Sinclair, at Page 7, said:

> "Mr. Chairman, members of the Commission, my name is Ian Sinclair. Associated with me is Mr. Wright, and we have the honour of appearing before you on behalf of Canadian Pacific."

There is no indication in the transcript; it is perhaps a very narrow technical interpretation, but referring to the way that Mr. Sinclair has perhaps represented himself it is, of course, probably obvious that he is representing the Canadian

Pacific Railway. But in the 1959 Annual Report, under the list of companies that are controlled, or investments, or controlled companies -- and this is Page 27 of the 1959 Annual Report -- among those listed is Canadian Pacific Airlines Limited, which is a controlled company; another one is Smith Transport Limited, which is a company owned by the C.P.R. in the trucking business; and, also, Smithson's Holding Limited.

Mr. Chairman, there has been no appearance by any of the airline companies, either CPA or TCA, and I would suggest the situation is analagous as far as TCA is concerned, because in their Annual Report --

THE CHAIRMAN: Well, I think that we understood Mr. Sinclair is acting for all subsidiaries or controlled companies, and Mr. McDonald likewise.

MR. SINCLAIR: No, sir. I must make clear that insofar as Canadian Pacific Airlines are concerned, and insofar as Smith Transport are concerned, I have no instructions from them.

I am representing the Canadian Pacific Railway Company in respect of its operations.

Insofar as this other thing, I assure my friend he has not taken me by surprise at all, and even if he had it is a very easy matter to answer because I happen to know something about the three companies which he mentioned. He mentioned three: Canadian Pacific Airlines,

Smith Transport and Smithson's Holding. I happen to know something about those companies, and they have instructed no counsel to appear in front of this Commission to raise matters that would affect railway transportation or matters relating thereto.

MR. DRYSDALE: Mr. Chairman, I thank Mr. Sinclair for the information. Mr. Sinclair, as well as being the Vice-President and general counsel of the Canadian Pacific, is, I understand, a director of the Canadian Pacific Airlines.

MR. SINCLAIR: And the other two companies that you mentioned.

MR. DRYSDALE: The point that particularly interests me, Mr. Chairman, is the fact that the information seems to be coming predominently from the railway aspect of the companies, and the indication on the point of jurisdiction raised by Mr. Sinclair would also, it would appear to me, permit the airline companies to come forward to perhaps supplement the points raised by both the CPR and CNR as to the loss of passenger traffic and, I think, also as to a considerable loss of what you might describe as l.c.l. traffic. I think, frankly, for the Commission to make a sensible recommendation that it should be, perhaps, in some form before the Commission -- whether it is merely filed as a brief, and Mr. Sinclair instruct the CPA to ask him to file a brief, or whatever the procedure is, with relation to the subsidiary

companies, so that information would be before the Commission. I would submit at the present time that all we have is the Canadian National and the Canadian Pacific raising these particular problems which they have done, and I could give the references but I think the Commission is well aware of the problems with reference to the decline in passenger.

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I think it is important to find out as to what the TCA and CPA are going to do in the future. For instance, in the last past week I see where TCA have cut their Vancouver to Montreal rates by 25% and are going to increase some of the short run hops, for instance, from Montreal to Ottawa on the basis that the majority of costs are in take-off and landing. I ascertained on a very fast perusal of the transcript that this type of first hand information is not available and I thought if it was not going to be made available it should be clearly on the record that Mr. Sinclair -- there is no reflection on Mr. Sinclair ---

MR. SINCLAIR: I am not sensitive.

MR. DRYSDALE: But if he is just representing the Canadian Pacific Railway as a railway and trying to get the increase in rates for the railway and in a sense pushing into the background Smith Transport and also CPA I think that point should be quite clear and the Commission should, in making an assessment, consider whether or not they should have reports particularly from Canadian Pacific Airlines. Also if there is no representation, on Mr. Sinclair's instructions, to ascertain as to what weight is to be given to CPR and Canadian National representing just the one aspect in what the Commissioner himself has indicated was a general assessment of the impact of the situation. There is nothing before us from the pipelines and I am raising this, Mr. Chairman, as a person interested in the overall picture for a matter of clarification of the

record. I do not represent the pipeline companies, railways, airlines or anything else or any other transportation media and it is merely a general interest of investigating the matter thoroughly so you can bring forth the best recommendations in the general public interest.

THE CHAIRMAN: Well, we have had now over 20,000 pages of evidence, we have advertised in the whole of Canada for witnesses to come forward and many have come forward, Our research department has done a great deal of work and we feel that this is a matter that is very much related.

MR. SINCLAIR: Mr. Chairman, if I may interrupt, my learned friend said if it is our intention to push into the background all other aspects of the CP interest in transportation. This, of course, is not so. The position of the Canadian Pacific in regard to the merchandise services and necessity for integration has already been fully represented by Mr. Emerson. Certainly the CPR situation with regard to passenger service has already been fully put in before the Commission. It might take my learned friend Mr. Drysdale by surprise to find that the airlines have recognized the need for taper in rates but that is an old recognition insofar as freight is concerned on the railways and a matter that we have had with us a long time. While these things look somewhat startling it is completely wrong to say that we are pushing anything into the background and if CPA believed that they needed to

be represented before this Commission or that they wished to file a brief I can assure the Commission that the knowledge that the Commission was in existence was known to them since last May. I hope the Commission will take from me that the boards of directors of these companies had knowledge of the fact that this Commission was sitting and they had knowledge, further, as to your rulings as to this Commission. If they felt they had something to add to your deliberations beyond what you had already before you, I am sure they would have come forward.

MR. DRYSDALE: I would like to comment on that particular point. Apparently up to the date of May 2, when they were at volume 60, approximately half way through the proceedings there was a jurisdictional objection raised by Mr. Sinclair, counsel for Canadian Pacific, a director of Canadian Pacific Railways and who I would suggest could be the person who would recommend to the CPA as to whether or not they should appear.

MR. SINCLAIR: Just a moment, I do not think you can assume anything as to who would recommend. I represent who I represent and being on the board of directors I represent the interest that pays me on the board of directors and nothing else.

MR. DRYSDALE: I do not think that has clarified anything but I would put it this way, that as general counsel of Canadian Pacific Railway I assume that great weight would be given to your observations.

You stated that you do not think it would apply to air transportation in Canada so I would find it difficult to see if you said, as of May 2, 1960, that it does not apply to air transportation in Canada you would, as a director and general counsel of Canadian Pacific Railways recommend to the Canadian Pacific Airlines that they appear ---

MR. COOPER: Mr. Chairman, I think my learned friend should direct his remarks to you and the Commission rather than to other counsel here.

MR. DRYSDALE: I was speaking of ---

MR. COOPER: Just a moment. May I say I would not want any reflection to be cast on this Commission by any remarks made by Mr. Drysdale, that anything included within the terms of reference of this Commission has not received the attention of this Commission. The Commission has been well aware from the beginning of May, 1959, of its terms of reference. I can say as Commission counsel that I have been careful myself to obtain all possible evidence from the witnesses who have appeared before us as to air transportation and anything else which might be of interest and of value to this Commission. We have a considerable body of evidence built up that way on the matters which Mr. Drysdale has brought before the Commission this afternoon. I might also say that enquiries have been made from time to time by the Commission's staff itself on these matters. I might further emphasize what has already been said, that this Commission had published

the dates of its hearings from time to time and that it is not in a position to insist or force any attendance before us of any particular body whether it be an air-line or otherwise. I think in the light of those considerations that the Commission has given proper weight to the considerations which have been brought before it this afternoon by my learned friend Mr. Drysdale.

I cannot make any further suggestion or recommendation in this respect in view of the fact that the Commission has no -- I should not say has no power, but at least the Commission can only, in the ordinary course of events, receive briefs presented before it by persons who believe they have an interest in being here. We have not as yet and I do not expect we will have any formal brief from the airlines.

MR. DRYSDALE: I do not wish to repeat it again, but I would like to draw to the attention of the Commission that the Royal Commission on Transportation of 1951, better known as the Turgeon Commission had a brief presented on the matter of air transportation which is chapter 13, page 259 and a brief presented by Canadian Pacific Railway Company on the matter of air transportation. I would suggest, Mr. Cooper, if a comparison is made of paragraph 2(a) which is the Order in Council setting out the scope of the Commission to the present Order in Council and bearing in mind your own observations, I feel that the situation is wide enough that there could and should be representations. I know

Mr. Sinclair, at page 10859 of volume 60 dated May 2, 1960, in reply to a question by the Chairman, page 10858 said:

"The Chairman: Would you say that one of the problems relating to the railways transportation or the problems relating to railway transportation were caused by development of trucks.

MR. SINCLAIR: No, sir, I would not say that. I would say that the problems relating to railway transportation are caused first, -- I thank Mr. Mauro for bringing it to my attention -- by the statutory grain rates. That is my problem.

Secondly, that because of changing travel habits in the passenger field, there is this phasing out by the railways of which we will on direction of the Commission have something to say at a later time, but that has nothing to do with the problems of the trucking industry; that has to do with private automobiles and aeroplanes and, to a minor degree, busses."

THE CHAIRMAN: Well, what do I understand you are suggesting, that we call here the Canadian Pacific Airlines?

MR. DRYSDALE: What I was suggesting, Mr. Chairman, I am not trying to rock the boat at this very late date but in reviewing the transcript it was

not clear as to who Mr. Sinclair was representing.

MR. SINCLAIR: It is clear now.

MR. DRYSDALE: It has been cleared up at the present time. I was suggesting, even as a controlled company, that Mr. Sinclair would be in a position to at least suggest to CPA that perhaps they submit a brief which would be filed setting out the situation with regard to the future in the passenger field of CPA. Also, I would suggest the same thing for TCA and also the future position which I think is very important as to the competitive aspect of the airlines in carrying goods. The aeroplanes are able to carry heavier and heavier goods and I think that is a very, very important aspect of the whole picture. I raised it, Mr. Chairman, perhaps with the naiveness of an outsider but when I reviewed the people who were representing briefs before the Commission I could not help thinking that they were primarily localised interest people who were perhaps raised in the tradition of the old railroader. I would suggest that Mr. Sinclair might be in that particular category and I do not mean it as a reflection.

MR. SINCLAIR: I must tell you I have had something to do with airlines too and I assure you I expect to have more to do with presenting their view in the future and at the appropriate time. Do not say too much about me being brought up in a certain ---

MR. DRYSDALE: It is no reflection on you. I have not appeared before the Commission before and it was just solely on reading these particular observations

that I thought what we had is a situation with the Canadian National and Canadian Pacific wearing the hat of the railway but having other hats to deal with the trucking industry who were not represented as far as Canadian Pacific and Canadian National are concerned. But the other hats, as far as the airlines are concerned, TCA and CPA, the only major competitors who are likely to take that business were not represented. Perhaps looking at it naively I have great difficulty in recognizing how the Commission could come to reasonable and proper recommendations as to a review of the overall picture on national transportation and I suggest that perhaps the difficulty could be covered through these interested bodies should Mr. Sinclair like to recommend to his friends that they file a brief. I do not think it is necessary to prolong the subject any more than perhaps has been done.

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MR. SINCLAIR: I can assure my friend if he wants to know would I like to recommend that, the answer is, no, I would not like to recommend it. Somebody else might want to; possibly Mr. Drysdale.

MR. DRYSDALE: I think that is very important, Mr. Chairman, because who is going to appear before the commission to find out whether or not there is jurisdiction as far as C.P.A. and T.C.A. are concerned ? If, in the case of C.P.A., Mr. Sinclair has said, "No, I am not going to recommend they appear before them----

MR. SINCLAIR: It has nothing to do with jurisdiction.

MR. DRYSDALE: I think it has.

MR. SINCLAIR: I assure you, Mr. Drysdale, it has not.

MR. DRYSDALE: This has been the first time, Mr. Chairman -- and we have gone over 120 volumes -- when the position of Mr. Sinclair has been clarified as far as the record is concerned. He made the statement, "I represent Canadian Pacific". I didn't know from reading the questions which hat he had on, and now he says, "I am not going to recommend that Canadian Pacific Airlines bring forward anything." Yet, Mr. Sinclair, or the C.P.R. through their brief have raised the problems of the competition of the airlines. I didn't raise that. Mr. Sinclair raised the problem of jurisdiction.

THE CHAIRMAN: What are you suggesting we do ?

MR. DRYSDALE: The only thing I am pointing

out is, it is up to you whether you do something or nothing. That is entirely within your scope, but I think it should be very clear there has been no representation at all by Canadian Pacific Airlines or by Trans-Canada Airlines; there has been no representation by the trucking firms controlled by them. The only people who have appeared have been C.P.R. as a railway wanting an increase in subsidy and in freight rates, and the C.N.R. wanting an increase in subsidy and in freight rates. I think there has been one side of the picture and not both sides.

MR. SINCLAIR: Mr. Chairman, the Canadian Pacific has been appeared here asking for an increase in subsidy and in freight rates. It had asked for the commission to recommend that the grain rates remain at their present level and the subsidy for the difference of the statutory level be paid to the transportation industry on behalf of the western grain producers.

THE CHAIRMAN: I will tell Mr. Drysdale that in our office we have men working on the very subjects that he has raised, and in addition to that we have some evidence here, We are, I hope, not missing any bets in this thing. We feel that, perhaps, in the days gone by there has been too much emphasis put on the status quo. We feel that while you can't look into a crystal ball and tell what is coming from the air, you can make an assessment, and that we are trying to do. If you want us to do anything further, please advise us and we will consider it, Mr. Drysdale.

MR. DRYSDALE: Thank you, Mr. Chairman. I was just raising this, as I already indicated, as a matter of clarification. You have my objections and my viewpoint before you on the record, and whatever the Commission decides to do is a matter for the Commission.

THE CHAIRMAN: Thank you, Mr. Browne. We will adjourn now until Wednesday morning in this room for the cross-examination of Dr. Borts.

---Adjournment.

Hon C.P. McTague

ROYAL COMMISSION

ON

TRANSPORTATION

HEARINGS

HELD AT

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ROYAL COMMISSION ON TRANSPORTATION

Proceedings of hearings held in the Court Room, Board of Transport Commissioners Offices, Ottawa, Ontario, on the 23rd day of November, 1960.

COMMISSION

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Mr. H. Anscomb	Member
Mr. A. H. Balch	Member
Mr. R. Gobeil	Member
Mr. H. A. Mann	Member
Mr. A. Platt	Member

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Mr. A. G. Cooper, Q.C.	
Mr. G. S. Cumming	
Mr. H. W. Ellicott	Adviser
Mr. F. W. Anderson	Secretary
Major N. Lafrance	Assistant Secretary

Ottawa, Ontario,
Wednesday,
November 23, 1960.

--- Commissioner Gobeil not present --

--- On commencing at 10:00 a.m.

THE CHAIRMAN: Order, please.

Gentlemen, the Commission was very pleased that there was progress made by the cost conference last week of experts, and appreciate the cooperation on the part of all experts.

I think Mr. Cooper should now state the ruling made last June and read from the report.

MR. COOPER: Mr. Chairman, I refer to pages 14070 and 14071 of volume 80 of the transcript, where the Commission laid down the procedure to be followed to expedite the disposition of the submissions on costing matters to be presented by the provinces of Alberta and Manitoba and by the United Grain Growers Limited and the Wheat Pools. I quote commencing the last paragraph on page 14070:

> "The Commission is of the opinion that the submission in these matters to be presented by the various cost experts retained should be referred to and dealt with by a meeting of such experts and those of the railways under the chairmanship of Dr. D.E. Armstrong after the evidence of such experts has been given in chief and before cross-examination thereon.
>
> This meeting will be held in Montreal,

commencing on a date to be announced, and will be attended by the Commission as observers. No counsel will be present.

At this meeting: --

(1) All submissions above referred to will be discussed;

(2) Areas of agreement and disagreement will be determined and delineated;

(3) Minutes of the proceedings will be taken and a report made by Dr. Armstrong to the Commission setting out the points of agreement and disagreement between the parties;

(4) Opportunity for cross-examination of the cost experts for the provinces and the grain trade in public hearing will be afforded by the Commission on dates to be announced. However, cross-examination will be limited to the points of disagreement as reported to the Commission by Dr. Armstrong.

The Commission wishes to make it clear to all concerned that the procedure here set out for dealing with this complicated and difficult area of its work has been arrived at with the objects of saving time and expense and of permitting the submissions to be developed by the experts unfettered in so far as possible by the difficulties of such development through the technique of cross-examination of technical witnesses

in public hearings."

As the Chairman has already mentioned, the cost conference was held in Montreal. It commenced on November 14, the date fixed by the Commission, and ended on November 17. The Commission has received the report of Dr. Armstrong dealing with memorandum No. 1, submitted by Dr. G.H. Borts on behalf of the provinces of Manitoba and Alberta and setting out the points of agreement and the points of disagreement between the parties.

I now file the statement of such points of agreement and disagreement.

November 23, 1960.

STATEMENT setting out the points of agreement and points of disagreement with respect to memorandum No. 1 submitted by Dr. G.H. Borts on behalf of the provinces of Manitoba and Alberta arrived at between the parties at the Cost Conference held in Montreal November 14-17, 1960.

Page references are first to the memorandum submitted by Dr. Borts and second to the transcript.

Points of Agreement

The following changes were agreed:

1) p. 2, line 26

p. 19122, line 4 - substitute "tracing" for "allocation"

2) p. 3, line 9

p. 19122, line 18 - substitute "correlation" for "association"

3) p. 4, line 15

p. 19125, line 19 - substitute "31" for "27"

4) p. 5, line 4

p. 19126, line 19 - insert after the word "clear" the words "from the statistical tests"

5) p. 12, line 6 to p. 13, line 20 -
pp. 19137 - 19138 - The Canadian Pacific will re-run this model omitting Quebec. Dr. Borts will accept the original model with this qualification.

6) p. 40, lines 10 to 14. p. 19188, lines 11 to 17. Delete all words "There are no..." to and including "For these reasons" so that the paragraph begins "We have decided"

Points of Disagreement:

7) p. 1, line 13

p. 19119, line 3 to 6 -

The Canadian Pacific objection to the first sentence of paragraph 2 is part of a general objection to the treatment by Dr. Borts of geographical effects. Because of this general observation, they argue that the criticism of Dr. Borts is not well taken. All parties agreed that the inclusion of a variable to reflect the effects of geography on maintenance would be desirable. In fact the CNR has used such a variable. The CPR maintains that the only variable which might be significant is curvature and they stated that on the basis of engineering grounds they do not feel it would be significant and therefore have not spent the many many months which would be required to create an appropriate index. Since they feel curvature is the only appropriate index they reject the use of any other variable in its stead. This general objection underlies particular objections as follows:

7a) p. 3, lines 8 to 17

p. 19123, lines 11 to 18 -

The Canadian Pacific does not agree that the facts alluded to support the inference that geography is important in explaining cost.

7b) p. 4, lines 23 to 27

p. 19126, lines 6 to 18 -

In addition to the general objection all parties agreed that a physical variable rather than a money variable should have been used. The position of Dr. Borts is that he would have used such a variable had one been available. The Canadian Pacific objects to the inclusion of miles of track per $100 of investment on the grounds that simple miles of track would have been the appropriate choice of a size related variable.

7c) p. 5, line 16

p. 19127, line 28 -

On the general grounds, the Canadian Pacific objects that the equation fitted does in fact indicate that the geographical nature of CPR operations explains a substantial portion of track maintenance expense.

7d) Addendum to memorandum No. 1, page 2

p. 19194, lines 6 to 21 -

The Canadian Pacific argue that figure of $742.52 as the minimum for track maintenance is incorrect and that $1137 is the accurate figure. They argue that Borts' estimate leaves out a number of factors including repair of railway crossings and of eroded sub-grades. Mr. Banks loaned to the Commission staff further evidence of the minimum maintenance cost of United States lines for which abandonment applications have been made.

This material is to be loaned in turn to the Canadian Pacific before return to Mr. Banks. The railways also object to the use of train miles in place of gross ton-miles as an explanatory variable for maintenance and depreciation. The question hinges upon what are the factors which cause wear and tear of track. All parties seem to agree that wear and tear is in fact a function of maximum axle weight, the total weight of the train, and the speed of the train. Since it is not possible to use these explanatory variables, something less satisfactory must be used. The Alberta-Manitoba consultants lean to the total weight and that since maximum axle weight is found in the engine, not the trailing load, train miles are a suitable proxy variable. The railways adopt the position that total weight of the train is more important and that "trailing gross ton-miles" which happens to exclude locomotive weight is the best of the available proxy variables.

7e) p. 6, lines 5 to 12

p. 19128, lines 20 to 29 -

The Canadian Pacific objects that the adjustment referred to would not be necessary if professor Borts used miles of track in the first place. This objection is therefore

a part of that made in point 7b.

8a) p. 7, line 3 to p. 14, line 23
p. 19129 line 10 to p. 19140 line 11 -
A series of objections were raised to the models fitted by Dr. Borts in an attempt to prove the explanation given by Canadian Pacific for the expenses of track maintenance and depreciation. In general they are as follows:

i. The choice of independent variables is inappropriate on a priori grounds. The variables selected are not those that one would expect to find as controlling variables.

ii. The equations are pyramided, i.e. equation a is fitted to one series of variables - equation b fits the explanatory variables of equation a to a second set of variables and it is therefore assumed that the variables used as explanatory variables in equation b, can be related to those for which an explanation is sought in equation a. The railways argued that no T-test has been provided and indeed that they cannot be provided and therefore it is impossible to test the statistical significance of the coefficients. Dr. Borts agrees that pyramidding is undesirable and states

that it is the only way he could get relations with the output units and that he is willing to accept the result of his work even without the provision of a T-test on the pyramid equation and that he based this on the T-test applied to the equations before they were combined. Canadian Pacific argues that in some cases the new equations do not explain enough of the variance of the dependent variables to be worthwhile.

iii. The railways offer general objection to the east-west split. Specifically in account 235 the railways object to the application of the system equation to the west.

iv. With regard to the investment regression, the railways maintain that there is no difference between east and west and that therefore the original system equation is better.

v. The railways argue that both the east and west models left out switching, that in the east, account was not taken on miles of track, and that on these grounds the models presented are faulty.

8b) Objection was raised to the manner in which the T-test was used to eliminate certain variables which the railway feels are important to an

explanation of maintenance expense. This objection relates to that of the T-test which is discussed below (point 9).

8c) p. 7, line 6
p. 19130, line 8 -
The question was raised whether 202b should appear in this line. Dr. Borts undertook to re-examine his position and to state his position in the light of the conversation to the Commission staff and the Canadian Pacific as soon as possible after the conference.

9a) p. 14, line 24 to p. 17, line 26
p. 19140, line 11 to p. 19144, line 7 -
The railways object to the discussion of the use of a 5% probability level on two grounds. First, that the appropriate test to apply is a one-sided test and that therefore when Dr. Borts quotes a probability as for example of 14%, it would in fact be 7%. It was agreed that this point should be argued, in effect, before the Commission staff by correspondence and could not usefully be dealt with in formal hearings.

9b) The railways agree that they do not adopt an inflexible criterion of 5% but believe that some flexibility should be made in the face of the logical relationship between the variables. Dr. Borts stated that he felt

that this does not remove his objection that the CPR statisticians have not given convincing reasons for accepting regression coefficients which would be rejected when a 5% critical probability level, (or some other probability level) stated in advance, is employed.

10) p. 18, line 1 to p. 20, line 11
p. 19144, line 8 to p. 19146, line 30 -
The provincial experts suggest that the use of gross ton-miles as opposed to car-miles penalizes heavy loading commodities. They state that since there is a linear relationship between car-miles and gross ton-miles as between divisions, the use of car-miles in place of gross ton-miles would not change the regression results but would change the cost falling on grain. Since the evidence was not examined by the CPR neither agreement nor disagreement with this statement was registered. The provincial consultants stated that they had not, in fact, used car-miles as a basis for charging costs to grain. Their point is simply that to the extent that some costs are a function of car-miles rather than gross ton-miles, the use of the latter overstates the cost applying to grain. The railways contend that gross ton-miles are the appropriate variable to use and that car-miles are not.

11) p. 20, line 12 to p. 38, line 13
p. 19147, line 1 to p. 19182, line 5 -
After an extended discussion on the facts of multiple car cuts, certain evidence on which the Canadian Pacific has rested its argument that the evidence shown by the provincial consultants for other yards did not apply to Canadian Pacific operations, was re-evaluated. Canadian Pacific is presently re-examining its position on this matter.

12) p. 38, line 14 to p. 43
p. 19182, line 7 to p. 19192, line 28 -
The general position of the Canadian Pacific is that the second method for allocating constant costs is preferable to the first method which they used. It would appear that the Canadian Pacific is willing to accept, as a proper interpretation of their reasons that proper weight was not given to these costs, the reasons which Dr. Borts has given why they should not. The difference, therefore, seems to rest largely on Dr. Borts' statement that there are no a priori grounds to choose between the two methods.

THE CHAIRMAN: Mr. Sinclair?

MR. SINCLAIR: Yes. Now, Mr. Chairman, before I commence my cross-examination of Dr. Borts I would like to say that Canadian Pacific is proceeding at this time, as the Commission knows, with only a part

of the cross-examination on the cost study of Manitoba-Alberta dealing with the movement of grain to export positions in western Canada. The Commission will recall that the cost study presented on behalf of these provinces is in three parts.

THE CHAIRMAN: I think I will warn you, Mr. Sinclair, you were not present at the conference, and neither was Mr. Cooper, nor was anybody of the Commission.

MR. SINCLAIR: Yes, sir.

THE CHAIRMAN: But Mr. Hay was there, and he is sitting by Mr. Cooper, and if you innocently transgress he will call your attention to it.

MR. SINCLAIR: I wish he would, sir, and I also say this, that if I move into areas which I think might be of assistance to the Commission in cross-examination, that the Commission would say, "Well, we think that has gone far enough, and we would like that to be handled by the experts"; I will say "Quite so", and I will be very happy, I might say, to have that protection because it would assist and save time.

THE CHAIRMAN: We will be guided by Mr. Hay and Mr. Cooper.

MR. SINCLAIR: Well, thank you very much, sir.

There were these three parts of the cost study on Manitoba and Alberta. There was, first, the provinces' assessment of the cost of money to Canadian Pacific. Now, that part has been heard and the cross-examination concluded.

Now, the second part was the amount of revenues

received; that is, the dollars for the movement of grain received by Canadian Pacific under the Crow's Nest Pass basis of rates, and the amount of work done by the railway measured by such items as gross ton-miles, switching miles, car days and the like, and the cost of repairs to freight cars and locomotives, depreciation and similar matters. Now, the cross-examination on this part of the Manitoba-Alberta study will be heard in January.

Now, the third part were those costs which amount to about one-third of the variable costs, which were determined by statistical techniques through the application of multiple regression.

It is this third aspect, the evidence which has been given by Dr. Borts, and it is on that that we are to cross-examine this morning, on the methods he used and on the choice of the work units which in his view explain that cost, and the matter of the determination of the constant costs.

Now, Mr. Chairman and members of the Commission, because of the particular advantages of this Commission, certain areas which would in other circumstances be dealt with in cross-examination will not be dealt with in this way. So that my position will be understood, I wish to draw to your attention that the Commission has among its members two men who have had experience in the use of statistical techniques, Messrs Platt and Gobeil, and one member who is a Transportation Economist, Mr. Mann. The Commission also has in Mr. Commissioner Balch

a man who spent many years on the railroad as a switch man and who, in the vernacular, is close to the cinders. In addition, the Commission has the advantage of highly qualified technical advisers in Dr. Armstrong, Dr. Hay and Professor Anderson.

Now, these remarks that I have just made are directed to items 2 and 3.

Now, in regard to the cost of money study, here again, the Commission has some particular advantages because many of its members are men with knowledge of banking, accounting and finance, and people with practical ---

MR. FRAWLEY: I have no objection to what my friend is saying. I cannot help but say that it reminds me of a Jury speech.

THE CHAIRMAN: Go ahead.

MR. SINCLAIR: Of course, Mr. Chairman, we can of course proceed, and if my friend thinks that I am addressing a Jury in addressing you gentlemen, I think he is very much mistaken. I do not think that people with the background that you gentlemen have and people with the technical abilities that you have, and with your technical staff, should be looked upon as a Jury, even a blue-ribbon one, because your abilities and knowledge and background and the task you have is much greater than any Jury that I know has ever had to deal with.

MR. FRAWLEY: No disagreement at all.

MR. SINCLAIR: Now, in this part of cost of money, I make reference, Mr. Chairman, to you and to

Commissioner Anscomb and Commissioner Platt. In addition, the Commission has the technical advice of Mr. Lionel Kent, who has been a financial and accounting adviser to many Canadian businesses in western Canada and in eastern Canada and who has been the financial and accounting adviser to certain of the western provinces and financial and accounting adviser to the Board of Transport Commissioners.

Now, you, sir, made reference this morning to the cost conference. This was an intensive conference. It was held among the technical advisers, as you said, of Manitoba-Alberta and the Grain Trade and the technical advisers of the railways. I am instructed that it lasted long hours, from something after 9 in the morning to something after 9 at night on two days, and very, very complete days the other two days it was in sitting.

THE CHAIRMAN: Which is all to its credit.

MR. SINCLAIR: I think so, sir, and as you have said, worthwhile progress has been made and further work arising out of the conference, I am instructed, is to be done, and I understand the technical advisers of the Commission still have a number of issues before them.

Now, Mr. Chairman and members of the Commission, the cost study of Manitoba-Alberta showed that grain on the lowest basis they advanced was approximately $10 million short of meeting its full cost. The cost study of Canadian Pacific showed that the difference between the full cost of moving grain and revenue received under

the statutory rates was approximately $35 million. In other words, a difference of $25 million. In the $35 million of short fall from full cost, as determined by the Canadian Pacific cost study, some $18 million arose from constant costs. Under the Manitoba-Alberta proposal in this area, the constant cost ascribed to grain was a range from $10 million to $15 million, depending upon the method applied. In other words, a difference between the two cost studies in the area of constant costs of from $3 million to $8 million. This difference is in part accountable by a difference in the cost of money between Manitoba-Alberta and Canadian Pacific and in part as a result of the difference in the variable costs determined by the two studies.

My point here is that it is only the difference in the variable costs that we are concerned with this morning. Now, the difference in those variable costs in the two studies is approximately $17 million. The Manitoba-Alberta cost study as presented to the Commission shows no short-fall at the variable cost level and Canadian Pacific shows a short fall of approximately $17 million.

Now, this variable cost level difference has been somewhat narrowed by the cost conference, but in the regression aspects, which we are going to deal with this morning, the differences are still marked. And the differences account for approximately $3.5 million of the $17 million difference on the variable cost level.

Now, the reasons why Canadian Pacific cannot

accept the revisions made in the regression part of the Manitoba-Alberta cost study as advanced by Dr. Borts are in part matters of a highly technical nature which were put forward at the cost conference and I do not intend to go into them in cross-examination. In other areas, while it is technical, it is not highly technical, in my submission, and there are reasons why for these other than technical reasons Canadian Pacific cannot accept the revisions made by Dr. Borts, and I intend, with your permission, Mr. Chairman and Commissioners, to go into that. I am mindful that the Commission has given to Canadian Pacific the opportunity to call rebuttal testimony in January next on this matter, and I am also mindful of the ruling made by the Commission and the report of the cost conference which is now part of the record, and I am very mindful of the point raised by my friend Mr. Cooper this morning, and as you say, sir, it is my intention to keep within the limits so set up. I want to repeat that if the Commission feels that I am into an area that might better be left for expert discussion, if Mr. Cooper would just indicate to me, I would be very happy.

THE CHAIRMAN: That is what you propose?

MR. SINCLAIR: Yes.

MR. MAURO: Is that the completion of the opening statement prior to cross-examination?

MR. SINCLAIR: Yes.

MR. MAURO: I would like to be sure we are moving on now to cross-examination, and that we both have

an opportunity to argue at some subsequent date on this.

The first thing I want to comment on: I notice there is part of a page missing off the document filed.

THE CHAIRMAN: Well, that is the conclusion directed by the consultants to the Commission, and it does not apply ---

MR. MAURO: I just wanted to be sure, because my learned friend has referred to the memorandum, and I assumed that the memorandum, now that we are going to be dealing with it, is one that is not entitled "memorandum" at all, but dated November 23, 1960, and not the memorandum dated November 21, 1960, which contained the areas of cross-examination, statement on page 5, and which set out three points that they felt were fruitful for areas of cross-examination.

THE CHAIRMAN: The one that is put in is consistent with the ruling in June.

MR. MAURO: According to that ruling, then, Mr. Chairman, the points of agreement will not be subject to cross-examination.

THE CHAIRMAN: No.

MR. MAURO: And I understand that those points of agreement, as listed on page 1 of the memorandum filed this morning, means that Mr. Sinclair has agreed not to cross-examine on the substitution of the word "tracing" for "allocation", and the substitution of "correlation" for "association", and the substitution of "31" for "27", and the other insertions of words, but that to all other intents and purposes the 43 page document submitted by

Dr. Borts is open to Mr. Sinclair for cross-examination. That is how I understand the ruling.

THE CHAIRMAN: Yes.

MR. MAURO: That is, as I understand the ruling of June 10, there would be no cross-examination on points of agreement, and the points of agreement are listed there on page 1.

I call Dr. Borts for cross-examination.

GEORGE H. BORTS, recalled

CROSS-EXAMINATION BY MR. SINCLAIR:

Q. Dr. Borts, so we may have some idea of how I intend to discuss this matter with you I think I should say first that I want to discuss with you some matters of principle. Then it is my intention to move in and discuss with you your equation that you substitute for those of the Canadian Pacific. Then I would move into your suggestion about the car cost rather than gross ton miles as a measure and then, finally, into the question of the costs.

Now, on the first matter of principle, Dr.Borts; when a statistician decides to apply a statistic to the determination of cost he must decide what work units or variables he thinks would explain the cost he has under consideration; correct?

A. Excuse me, is that a quote?

Q. No.

A. Just a question -- yes, that is a correct statement.

Q. He builds from this equation which he has on the one side, the cost he has under consideration, and on the other side a constant term of the independent variables that he has chosen to explain cost; correct?

A. If we understand each other by "independent variables", yes. I have a feeling that

we might wind up in some disagreement about how narrow the cost units are defined at this level of consideration. I would certainly say "yes" to your answer.

Q. To my question?

A. To your question, yes.

Q. Now, the statistician runs the equation and then he is able to see how much of the variability in the costs he has under consideration is explained?

A. If I could -- he selects the variables first and selects the sample on which the equation will be run and then the answer to your question is "yes".

Q. And then the amount of the variable explained is expressed as the R^2?

A. Oh, I am sorry, I misunderstood you when you said "the amount of variability explained". As you recall from my initial testimony, variability is used in two senses here: the R^2 expresses the amount of variation in the dependent variable which the equation explains, yes.

Q. The R^2 explains the difference between the projected value of the equation and the actual value of the observation summed up and squared?

A. Yes, that is correct.

Q. Squared and summed up?

A. Yes.

Q. Now, other things being equal, the statistician will accept the equation with the highest R^2. That is, he will accept the equation, other things being equal, that explain the most variance?

A. Other things being equal, the answer is yes.

Q. Then, Dr. Borts, a statistician applies what is known as the T test and by that meaning that he determines the value of T for each unit cost developed by the equation. By "unit cost" I mean the co-efficient -- that is what the statistician calls the co-efficient?

A. That is correct.

Q. Now, the value of T is determined by dividing the co-efficient by the standard error?

A. Correct -- by the estimate of its standard error.

Q. The estimate of its standard error?

A. Yes.

Q. Because that is the way he does this complicated mathematical or algebraical determination and this is done by formula?

A. Well, the division is purely --

Q. Not the division, even a lawyer can do that. The determination of the standard of error is a complicated matter?

A. That is correct.

Q. And that is why you say it is an estimate.

So, we now have the value of T by dividing the co-efficient by the standard error as determined in the usual normal way?

A. I would appreciate if I could correct you because you get going back to the term "standard error" and I use the term "estimate of the standard error". I think we can agree it is an estimate on the cost. The formula is complicated but there is no way of knowing the standard error of the co-efficients and all we can do is estimate it from the same sample from which the regression co-efficient has been computed.

Q. A statistician asks himself then, is the value of T as developed by each of the co-efficients in the equation statistically significant?

A. Significantly different from zero.

Q. And that makes it statistically significant?

A. Well, there are T tests which would apply to other things than zero but I will go along with you on that -- yes.

Q. And if in the mind of the analyst the value so determined is not statistically significant then he rejects the equation?

A. Generally what he tries to do is fit the equation again rejecting the particular independent variable which was found to be insignificant by the test or try some other form of equation if he feels that he wants to explain his variables in

a particular way.

Q. Now, is that really correct? Perhaps you could help me on this because if you have one co-efficient in the equation that is not statistically significant because all the other co-efficients in the equation are inter-related, you must reject the equation. Is that not right?

A. Well I might just correct you and then I think we can agree again. This is true if all the co-efficients explain the constant term of the equation and then I would agree with you because, as you know, both your own statisticians and I accepted equations where the constant term was not significant.

Q. Now, Dr. Borts, a high correlation, a high amount of variance explain a high T value. If each co-efficient in the equation is not a final test you have to consider the equation and its results in the light of them being meaningful; correct?

A. Correct.

Q. You express it this way in Volume 116 at Page 19108:

"Sometimes a correlation can come out very high without being very meaningful."

A. Yes, that is right.

Q. And later on the same page you say again in a somewhat different way:

"I would caution against using goodness of

fit as the only criterion in using this technique for costing."

A. That is correct.

Q. So, Dr. Borts, the statistician analyst having a reasonable amount of variance explained by looking at the R^2 factor and having the statistically significant equation by looking at the T values and the co-efficient in the equation applies what I am going to call the clincher and that is the ultimate test which I term the K test?

A. Capital K or small k?

Q. Capital K, the K test. Do you agree with me?

A. The K test?

Q. You do not know what the K test is. I am sorry, the K test is the application of knowledge, experience, common sense and appreciation of the explanation that you are trying to get; correct?

A. Absolutely.

Q. Dr. Borts, an analyst statistician is sometimes said to be a man who looks for homogenity and finds it difficult to live with heterogeneity; do you agree with that?

A. I would say that is a philisophical issue and I do not think it describes my own behavior. At least it rhymes, though.

Q. Well, we will see if it is close. I suggest it is not because I am going to suggest to you that while a statistician is not disturbed

if he finds in his observations homogeneous matters but a disturbing influence in the homogeneity if that disturbing influence is scattered randomly throughout the observations. Do you agree with that?

A. Would you say that again.

Q. I say that the statistician analyst is not disturbed if he has in his observation that are otherwise homogeneous a heterogeneous factor when he finds that heterogeneous factor is distributed randomly among the observations?

A. I think that is a fair statement, yes. I am a little bit bothered by the generality of the question, though. If you gave me a little time we might argue about a counter example.

Q. Dr. Borts, again as a matter of principle, the analyst has to have a reasonable number of observations or he cannot apply the regression technique?

A. That is correct. He cannot apply it and hope to get statistical significant results. You can always fit a straight line to two points.

Q. Now, Dr. Borts, other things being equal, the analyst will use the most observations available rather than the least?

A. Other things being equal, that is correct, provided the observations satisfy the criteria of choice which we will apply to that.

Q. That is the K test?

A. Yes. Well, the K test is an intriguing

idea but I think you are going to confuse people by using the word "test" for a procedure which differs among every individual.

Q. Well, we will see. I do thank you for bringing that to my attention. Now, the statistician analyst is dealing with the whole which is capable of being divided into groups of observation tests to see whether the whole can be used rather than the individual groups by applying what is called the T variance analysis?

A. He uses that and he also uses the K test. I should explain, perhaps, that is to say when a statistician has a body of information from which he wants to extract a relationship he uses any information at his disposal in order to make a decision as to whether the sample should be treated as a unit or whether it should be segregated in some reasonable fashion. That whole co-variance test is a very good test to use. He will also use that information which is available to him from engineering -- in this case engineering sources. In another case it might be biological sources and so on.

Q. Now, co-variance analysis enables the statistician, I take you to mean, it is whether a statistically more satisfactory result will be achieved by taking only a part of the whole as distinguished from the whole, in other words, your dividing the observations into groups and working them out separately

rather than taking all the observations and working them out as a whole?

A. That is correct, yes. There are also rules for combination which this test does as well. Yes, your statement is correct.

Q. And as you said, that is what I think you would like to add, is that the statistician must be careful to know that the data he is using is relative to the situation that he is analysing?

A. Correct.

Q. Now, Dr. Borts, if the analyst is attempting to remove what he thinks is a heterogeneous influence he has to know two things, the first being that the differing factors are not randomly distributed; correct?

A. Would you repeat? The differing what?

Q. The differing factor?

A. Is not randomly distributed, that is correct.

Q. And the second, having satisfied himself that there is this different factor that has a disturbing influence which he feels he wants to remove, the analyst then has to choose the variable which does remove or extend that disturbing factor or a heterogeneous factor that is the subject of the matter he is working with?

A. Correct.

Q. Dr. Borts, in your paper which you submitted to this Commission, you said on page 1 ---

A. Is this the transcript or the paper?

Q. I am going to work from the paper, if you do not mind. I could swing over to the transcript.

A. Well, I have the paper before me, so that will be all right.

Q. You said in your submission, "The most important criticism to be levied against the CPR regression studies is the failure of the estimated equations to depict output and cost variation among regions of homogeneous operating characteristics."

In adopting the independent variables, or the explanatory variables in completing your calculations, that you substituted for those used by the Canadian Pacific, was the reason for their adoption based on the fact that they enabled homogeous operating characteristics to be reflected?

A. Yes, in those cases where the regression equation was corrected -- and I think there are five separate cases. Let me check that: there are six separate cases of which five, I believe, are under discussion here.

Q. Yes.

A. Although the same conclusion would be true of the one we will not discuss, an attempt was made as one of the goals of re-working the equation, an attempt was made to correct in such a way that we could take account of the heterogeneous operating characteristics

of different regions of the railway, though this attempt took different forms in different parts of my work.

Q. Yes, I will discuss those different forms with you later.

A. Yes.

Q. What did you mean, in view of the fact that the adoption was based on the fact they enabled homogeneous operating characteristics to be reflected, what did you mean -- you having told me that -- when you said at page 3, "The statistical models to be presented in this study are corrections of CPR models in the sense that they make allowance for geographic differences among the observations."

A. What do I mean by that?

Q. Yes.

A. What I mean by that is that if you do not make allowance for the geographic differences among observations you are likely to attribute to specific output units a certain amount of cost which is not properly attributable to that cost and which, in fact, is attributable to the nature of the railway's operations.

Q. Well, Dr. Borts, then, it is correct to say, for instance -- and let us look at it -- accounts 372, 373 and 376, page 10, Dispatching and Station Employees Expenses -- you are not attempting to reflect any geographic difference in the accounts I have just mentioned, are you?

A. Let me see. No, sir, that was one equation where the objection was not based on geography;

that is correct.

Q. The reason you did not introduce any geographic factor in any equation dealing with those accounts, 372-3-6, Station Employees, is because knowledge tells you that geographic factors are not meaningful in determining what explains cost in this group of accounts?

A. Well, that is a rather comforting thought, but actually I did experiement with the equation to see whether geographic factors were important nevertheless, and I found they were not.

Q. But knowledge would have told you, I suggest, that if your statistical results showed you there was a geographic factor you would have disregarded these statistics?

A. I am not sure of that. I can think of hypothetical situations where the generation of these expenses would differ in different parts of the railway depending on the nature of the traffic carried. For example, as between carloads and less carloads, and between passenger and freight.

Q. Do you call that geography?

A. To my mind, any characteristic of the railway's operations which is of a geographic nature, that is to say, if the railway's operations in one part of the country were different from their operations in another part of the country I would not say this reflected the geographic terrain, but I would say a geographic split of the railway's divisions for the

purposes of statistical information would be a meaningful split.

Q. I suggest to you in the example you have used you would not use any geographic split, but you would put in as an independent variable something that would capture the variations in costs arising from carloads or l.c.l., and you would not make a separation?

A. I beg to differ with you, sir. I suggest that the exact nature of the statistical correction you put in depends on the problem at hand, and there are occasions where you can capture the effect of geography without explicitly taking it into account, as I have to my misfortune on some earlier occasions, and there are cases where it is better to recognize the effects of geography explicitly -- rather, better to recognize the effect of differences in the operations of the railway in different geographic regions explicitly.

Q. Dr. Borts, I suggest to you that if l.c.l. is labour intensive and that makes it expensive, and you are looking for what varies that cost, it is not more labour intensive in one area of Canadian Pacific than in the other area -- knowledge tells us this?

A. Quite so.

Q. And, therefore, if you want to reflect that difference you should take an output measure that measures l.c.l. throughout the system and get the larger number of observations that this enables you to have and upon which to work your equation?

A. I am afraid I have to disagree with you.

If l.c.l. is on a zero level in some divisions of the railway which are geographically compact, there are strong grounds for suggesting another technique to the one I mentioned.

Q. Are you suggesting there are divisions of Canadian Pacific where l.c.l. is at a zero level?

A. No, sir. We were discussing a hypothetical case.

Q. If knowledge tells us that the volume of l.c.l. is randomly distributed throughout the divisions of the railway, then are we not back to the position that you and I agreed indicated that you would do the whole rather than the parts?

A. In those conditions, yes.

Q. Now you said, Dr. Borts, in your answer to me that you were going to rely on your knowledge of wanting to get different areas -- the geographic significance: what did you rely on, then, in the Shops and Engine House Account?

A. What page is that?

Q. Page 7. What knowledge did you rely on on that account to say that geography was a material factor and should have been taken into account in the determination of the expenses of Shops and Engine Houses, Maintenance and Depreciation?

A. In answer to that question, I would like to call your attention to the uniform classification of accounts.

Q. I have it, yes.

A. The 1959 addition.

Q. Yes.

A. The page describing the maintenance of Shops and Engine Houses, which is page number 235, and I believe there are something like 54 elements ---

Q. Not page 235?

A. Page 98, account No. 235.

Q. Yes.

A. There are something like 54 or 55 elements listed under there as items whose repair would be charged against the Shops and Engine House Account. In addition to that there would be the depreciation on Shops and Engine Houses which would come out of your account 266 which would be added to the maintenance here.

Q. Yes.

A. And the reason why I felt it was worthwhile to explore the road geography here was because of the vast heterogenity, not statistically, but simply from the fact there are 55 items -- the vast number of items listed under here and the possibility these items would be a differential geographic representation in the different parts of the railway.

Q. Well, Dr. Borts, so that you and I may understand each other -- and we must if we are going to assist the Commission -- heterogenity does not arrive merely because of numbers?

A. Quite so.

Q. And so, therefore, what you are saying ---

A. I wonder if I could list what the items are.

Q. Well, if you do not mind, I will finish what I was going to say.

A. Surely.

Q. What you mean by saying that there is a large number of different elements of expense, that you want to therefore reflect by a separation technique instead of a whole is because you know that these different items do not apply randomly throughout the system?

A. If you would substitute the word "suspect" the answer would be, yes -- suspect before the equation is fitted.

May I read some of these elements here?

MR. MAURO: I think you should.

MR. SINCLAIR: Q. Certainly.

A. There is car sheds, car shops, foot bridges, material and supply, truck tracks, motor crane tracks, shop offices, oil houses, paint shops, air interior pipelines, car heating pipelines, shop and yard platforms, repair houses, sand houses, scale houses, steam houses, gas tanks, oil tanks, tool houses, track scales, transfer tables and turntables. That is not a complete list, by the way.

Q. Well, you have given quite a few. You tell me what makes you suspect that there are more of those in one area of the country than another on the Canadian Pacific? What makes you suspect that -- topl

houses, for instance, scale tracks, scales -- any one you want to take? What makes you suspect there are more in one area than in another?

A. I think the answer to that is simply that I have the feeling that the operating conditions of the railway are substantially different in two parts of the country, and that an account as heterogeneous as this is likely to reflect it. I had evidence from investigating some of the other accounts this was true, and I felt in operating with this account it would be worth while carrying out the same type of operation.

I might call your attention that on page 8 of this submission we discussed last week with the staff of the Commission whether it was really worthwhile bothering with the differences in the coefficients considering the fact that their magnitudes did not appear large enough to warrant the conclusion they were different, and the conclusion of that conversation was we would leave it up to the staff of the Commission to decide whether they wanted to.

The answer is that I felt the other accounts were different; therefore, I wanted to look at this account also.

--- A short recess ---

THE CHAIRMAN: Order, please.

MR. SINCLAIR: Q. Dr. Borts, then, because you suspected because of the large number of accounts, and what you saw in some other accounts, you applied the separation application rather than the total application in dealing with account shops and engine house maintenance and depreciation?

A. Correct.

Q. In other words, you were prepared to accept statistics without any knowledge that there was in fact different geographical results which would explain costs, shops and engine houses?

A. Without any specific knowledge on this point, yes.

Q. Now, with respect to accounts 253-266; power plants?

A. That is 253-266, yes, Page 9.

Q. Yes, Page 9.

A. Yes.

Q. Accounts 253-266, where you again did a separation instead of whole; what knowledge did you rely on or come to the conclusion that maintenance and depreciation of a power plant differed because of geography in these two comparisons?

A. If I might bore you again with a reference to the definition of the accounts, let me turn to property accounts number 29 entitled Power Plants, and number 31 entitled Power Transmissions Systems; the maintenance of both of which are included

under account 253 and the depreciation on this cannot be relevant to portions of 266. There are actually three sets of property accounts there on page 66 of the Uniform Classification of Accounts.

You have, first of all, power plants structure items, second, dam canal and pipeline items, and then, third, power transmission systems.

Now, among these items, it was clear that there is a wide variety of functions which the power plants perform, including -- if I might again just quote some of the items here: there are air pipelines in car yards --

Q. What do you think those are, Dr. Borts?

A. I suspect they are used for heating cars when they are standing.

Q. Yes. Would you expect them to be any different in the west than in the east?

A. They might be different, depending upon the amount of passenger traffic you use. You don't heat grain cars, I understand.

Q. Do you think that you do not heat anything but passenger cars, with air on it?

A. You might heat stock cars. That would be the only thing I could conceive of.

Q. There are many Goods Equipment that can be put under heat?

A. Yes, but the point here was that steam heating and things like third rail and third rail braces, third rail insulation and protection,

third rail support transformers, and so forth, which would have a different geographic representation.

Q. You know this?

A. No; this, again, is a suspicion and it was focused upon the fact that there seemed to be a number of items in these accounts related to passenger traffic. And this is what led me to believe that it would be worthwhile to perform a separation account.

Q. But what you are really saying is in this group of accounts, as distinct from the other group of accounts, you believe that by looking at the individual items you thought you saw in those individual items matters that would not be randomly distributed across the system?

A. Yes, that was one piece of evidence which I had. The other piece of evidence was already reported on the top of Page 10, where it was clear that the independent variables which could be used were different in the west and in the east.

Q. I will come back to that, if you don't mind, because I think that that is really the basis upon which you made the separation. Is that not so? That is the real basis that you made the separation on?

A That is correct, sir. If you are thinking of an efficient cause, your statement is correct.

Q. Now, you mentioned this earlier, and I

think I said I would discuss it with you, and I will come to it. At Page 3 -- I just want to clear this away, so I am sure we agree -- you indicated that you introduced geographic differences in one of three ways. A. By choosing an independent variable different to that used by Canadian Pacific in the regression equation?

A. Correct.

Q. And the only place, I suggest to you, that you did that in the six accounts that you revised, the six equations that you revised, or the six groups of expenses that you revised was 202, etc.; that is, track maintenance depreciation.

A. Let me check that to make sure. Correct.

Q. And then, B. That you introduce a geographic difference by the separation of the observations into groups to make an east-west split. That is your B, and in that there were shops and engine houses?

A. Right.

Q. Power plant?

A. Right.

Q. Station employees?

A. No, there is no split there.

Q. No. Locomotive supplies?

A. No, split there.

Q. Gross property and road investment?

A. Yes, there is a split there.

Q. So then, we have the split made in three accounts: shop and engine houses, power plant --

A. 235.

Q. 235 -- 266, power plants? 235 - 266, and gross investment in road property?

A. That is correct.

Q. And you have, then, four of the six.

And, then, your C.

That is the deletion of a certain observation from the sample because of lack of homogeneity in that observation, and the example of that is your 398 400, being train supplies?

A. Train supplies and engine house expenses, that is right.

Q. And, then, that is five. And, then, as you notice, there was one that you did not introduce a geographic factor, and we have discussed that; correct?

A. Which one was that?

Q. That was the one having to do with --

A. Station employees -- oh, yes. Yes. That is correct.

Q. Dr. Borts, you agree that geography is a physical factor?

A. It is partly physical and it is partly a matter of collecting the observations in the meaningful units. As I pointed out earlier, some of

these splits were made not because of matters of terrain but because of the belief that what was happening in one section of the railroad was different from what was happening in the other; perhaps because of the nature of the traffic.

Q. Then, what you are saying is that geography, as you look upon it, is either (a) a physical factor, or (b) a matter of how the railway operates?

A. That is correct.

Q. Which, again, is a physical factor, I suggest?

A. Yes, it is, but not a matter of terrain necessarily.

Q. Quite right. I mean, all physical factors are not terrain. Is that what you are saying?

A. Yes.

Q. So, we are agreed that both how the railway operates and terrain are physical factors?

A. All right.

Q. So, we can then say geography is a physical factor?

A. I have no objection to saying that, no.

Q. Now, at Page 4 through 7 of your paper you deal with the account 202, which is track maintenance and depreciation, and that is also a matter dealt with in your addendum and which you put in at the conclusion of your paper in the

transcript?

A. Correct.

Q. And, in dealing with this group of expenses, track maintenance and depreciation, you evolved three equations which you numbered 202A, 202B, and 202C?

A. Yes.

Q. Now, would you please look at your equation 202A which is on Page 4, and we will agree that in that equation you have 27 observations, as compared with the Canadian Pacific equation, having 31 observations. I have now made the correction which was referred to in one of the matters that was filed by learned commission counsel, and it says: "The value of R^2 with 31 observations was 0.827". Correct?

A. Correct.

Q. So that, there are four additional observations in the Canadian Pacific model to your model 202A, and also in your model 202A you have added an additional independent variable?

A. That is correct.

Q. You agree, Dr. Borts, with the number of variables and reducing the number of observations should result in a higher R^2?

A. Not necessarily.

Q Well now, let me see if that is not so.

A. Could you repeat your question on that?

MR. MAURO: I do not think he had concluded the answer.

THE WITNESS: I am not sure I understand your question now. Would you mind repeating it?

MR. SINCLAIR: Q. Surely. I said to you that if you reduce the number of observations and increase the number of variables you should get a higher R^2 value?

A. Well, that is a theoretically correct statement, but it does not always happen in every case .

As I said before, if you had two observations and fitted a straight line to it, you would have a R^2 of one because you would perfectly explain all the variation.

Q. I suggest to do that you would not only have to have two observations but two variables?

A. Two observations and two variables, yes.

Q. And three observations; three variables?

A. Yes, that is right. Thirty-one observations; thirty-one variables.

Q. But, Dr. Borts, you said to me that my question to you was theoretically right?

A. That is correct.

Q. Let me put it to you and ask you is it not also practically right, in a practical sense as distinct from a theoretical sense, if you improve the variables you introduce more superior

variables? And, also, that you remove heterogeneity; that in so doing, not in theory but in fact, if these changes that you make are in fact effective, the R^2 is improved?

A. It is a very hard question to answer, because it depends what you mean by reducing heterogeneity. In the statistical sense, your question is absolutely correct.

But, I should explain that we have already gone over what you mean by heterogeneity. If you mean by heterogeneity merely variation about the line or plane that is being fitted to the data, your answer is correct, that any reduction of heterogeneity should raise the calculated level of R^2.

Q. And I suggest to you that if as a result of your substitution, and if as a result of your change in independent variables the R^2 is not improved, that your hypothesis must necessarily be wrong; either that your alternative variables, explanatory variables, are not superior or that you have not, in truth, removed heterogeneity or both?

A. The answer is that if you get a lower R^2 from this procedure, then your explanatory variables are not superior in raising the R^2, and that you have not reduced the statistical heterogeneity which this sample generates; that is correct.

Q. Now, Dr. Borts, notwithstanding the

additional observations in the Canadian Pacific model, that is four, as shown, it is the difference from 27 in your model and 31 in the Canadian Pacific model; and notwithstanding the fact that you are working with five explanatory variables in yours and four in the Canadian Pacific model, the R^2 which you developed was not improved over the Canadian Pacific model, but was in fact not as good?

A. That is correct. It is three percentage points lower.

Q. Now, on Page 5, Dr. Borts, you state, in regard to your equation 202A, and I am quoting you:

"The equation we have fitted indicates that a substantial portion of track maintenance expense is explained by the geographical nature of CPR operations. This influence is captured in our equation by the variable which measures Investment in Tunnels, Bridges, and Culverts."

I suggest to you, Dr. Borts, that the data shows that the average gross investment, per division, in Canadian Pacific in bridges, tunnels, and culverts is approximately the same, east versus west?

A. I am afraid, sir, that my figures do not show that unless we can agree on what you mean by "approximately"?

Q. Well, I mean the difference is not significant in the handling of the statistic.

A. Well now, we have been using "significant" in a very narrow sense. I did not use any statistical test, I simply looked at the figures and saw that there is approximately-- my figure is about $20 million per division. Would that be correct?

Q. I would suggest to you ---

A. This is on a one year basis. My data was on a one year basis and I think the difference in the mean was about $60 million in a three year period or $20 million on a one. You could check that.

Q. Are you sure when you made your division that you made the proper divisor by looking at the actual count east versus west?

A. This is the sample mean, yes. I could look it up if you like.

MR. MAURO: Yes, perhaps you had better look it up.

THE WITNESS: No, I am afraid I have not got it with me now; I did not bring my sheet of sample means with me. I have it over in the hotel.

MR. MAURO: You have it in the hotel?

THE WITNESS: Yes, if you want it.

MR. SINCLAIR: Now, you took in your equation to a gross investment?

A. That is correct.

Q. You will have that other material after lunch?

A. Yes, I will get it.

Q. Now, Dr. Borts, we can agree that the investment in a bridge or culvert depends upon the weight that it is made to carry over it and that, therefore, the investment in part reflects the density of the line on which it is installed?

A. No doubt, that is if it is correctly designed it would, yes.

Q. You have no reason to suspect they were not correctly designed on Canadian Pacific?

A. No, sir.

Q. Now, Dr. Borts, we can agree that will be an investment in bridges in flat country as much as there is in more difficult terrain. For instance, on the Canadian Pacific a substantial bridge near Lethbridge and another substantial bridge near Edmonton and another one at Saskatoon. You agree that there is substantial investment in bridges, individual structures, even in flat country?

A. Oh yes, wherever you have a river you have to have a bridge.

Q. Aside even from rivers, I suggest to you that because of the terrain in certain flat country there is great ---

A. Yes, you might have rolls which you would want to cover with a bridge.

Q. Gullies?

A. Yes.

MR. FRAWLEY: There is certainly a bridge at Lethbridge and one at Edmonton, I know.

MR. MAURO: A small one at Saskatoon.

MR. SINCLAIR: Q. Now, the number and size and, therefore, investment in culverts is not, I suggest to you, a matter of terrain.

A. That is partly that though it does not have to be that. Could we, by the way, for the sake of the Commission, list what is covered in investment in bridges and culverts?

Q. Yes.

A. I know it is boring but it may help.

Q. It certainly is not boring, go ahead.

A. Abutments, bridge signs, cofferdams, concrete and masonry ends for culverts, cribs, decking including gravel for fire protection, dike protection, drainage systems, drawbridge engines and machinery, draw protection, false work, guard timers, ice breakers, painting (except repainting), piers and foundations, pier protection, pipe culverts, retaining walls, rip-rap around abutments, rip-rap at culvert ends, supports, water channels, waterproofing, wing dams, wing walls.

Q. Now, I suggest to you that with a very elementary knowledge of engineering it would indicate that that type of matter is not caused by any geographical differences. If you are going to have a bridge under which there is ice in the river you are

going to have have an ice-breaker; if you are going to have unstable banks on a bridge what you are going to have is rip-rap?

A. Oh, I agree, these are represented all over the railway, they would have to be.

Q. Now, I was asking about culverts; culverts either as to number or size are not brought about by difference in terrain, I suggest to you.

A. Well, I do not know how you get up around these hills then.

Q. Let me suggest to you that, for instance, if you set out to operate roads on a section basis along a two mile basis you are going to have roads crossing over the railroad and ditching right off the bat that requires culverts?

A. Yes, that is correct.

Q. I am going to suggest to you also that if you have an irrigation situation or flue for the movement of commodities into lakes that once again you are going to have culverts and those are not matters of terrain?

A. Agreed. When you say they are not matters of terrain you mean they are going to be in existence wherever there is a railroad.

Q. Yes.

A. We are perfectly agreed on that. We are arguing over the quantity, not the presence of these items.

Q. I am glad you brought to my mind the

quantity. You mean quantity in dollars?

A. That is correct.

Q. Now, you know on the Canadian Pacific that some bridges, some culverts, some tunnels, the various items that you have referred to as taken up in this group of accounts were built at very different times in the history of Canadian Pacific.

A. That is right.

Q. And at very different price levels?

A. That is right.

Q. Did you, in using this investment gross, adjust for price level?

A. No sir, nor did I adjust the depreciation figures either.

Q. I asked you about gross investment.

A. I am sorry. No adjustment was made on these figures for differences in the price level when the item was written into the account and the present price level.

Q. Now, in account 202, track and roadway maintenance expenditures for the maintaining of track of Canadian Pacific, is it the only factor that would have any real effect on track maintenance expenses that was not randomly distributed, suspected, the only one that should really concentrate on curvature -- take a good look at that. You would not disagree with that?

A. By curvature you mean the effect of super elevation on the wear on the outer rail and the shift ---

Q. The difficulty of lining?

A. The result of shifting from one rail to another.

Q. Plus lining and service?

A. Yes, that is right, a fair statement but I still would be worried about grades because of the use of sand in as much as you charge down this grade to get up the next one. That is the railway practice, of course.

Q. Do you suggest that sand is only used on gradients? We are in a diesel operation, are you talking about braking?

A. Yes, the braking.

Q. Well, did you know that diesels use the same method as you do in your car?

COMMISSIONER BALCH: Dynamic.

THE WITNESS: Yes, degenerative breaking.

MR. SINCLAIR: Q. Do you think you use sand in that?

A. You do not have diesels only in your cost studies, it has a lot of steam in it.

Q. But in the mountains where you see these big grades, how many?

A. I could not answer that, I was not told where the diesels were used. We were told there are diesel locomotives-- steam locomotives in the cost study.

Q. Were you also told that the Canadian Pacific at this time was fully dieselized in British

Columbia.

A. If I was told that it did not register but if I was told I would like to see the reference to it.

Q. In any event, if that was a factor ---?

A. Yes, that would be important.

Q. Then when you were talking about curvature, it is not only curvature arising from different levels but curvature arising from different matters such as turnouts?

A. That is right.

Q. And knowing the Canadian Pacific, are you suggesting that turnouts bring about problems in lining and surveying and rail wire are not effectively distributed across the system?

A. They are in existence wherever you have a railroad unless the railroad is straight track and we know that there are very few examples of that.

Q. And if it was said by the engineer of track that curvature on Canadian Pacific did not make any significant difference in explaining the depreciation and expenses and that this was not a disturbing factor that had to be taken into account specifically, you would disagree with that?

A. I would like to sit down and have a chat with him. I can explain why because very frequently, as last week's cost conference showed, when you sit down and can talk with these people you see the bases of their ideas and can get a good idea of how strongly

they are held and what the underlying data are.

Q. Because we would agree, Dr. Borts, that an engineer of track for this system, it is one of his duties to know what causes maintenance and track expenses and to take action to restrict that expense and to operate as efficiently as he can.

A. That is his responsibility, sir.

Q. In the light of this discussion which we have just had, I suggest to you that the "k" test, knowledge and experience, indicates unequivocally that gross investment does not explain the geographical effect on track maintenance and depreciation expenses.

A. Do you want me to answer yes or no?

Q. You answer whichever way you would like?

A. Well, you really have three separate questions in there and, again, I would like to refer back to the cost conference where everyone agreed that if we have a suitable variable to use in the regression equation it would be a physical variable. My use of the variable investment in tunnels, bridges and culverts arose from the absence of such a physical variable so we really have two issues at hand. One is where geography is important, and second, if it is important how we measure its effect. I would argue that the use of this investment variable has sucessfully captured the effects of geography and that while the engineer of track states, from his experience, that geography -- or as he put it, curvature -- has no effect on maintenance, the reason I would like to talk to the

engineer of track is because I do not think he has been given the right question.

Q. Let me see ---

A. The question that you have to put to the engineer of track is "How do you split the effect of traffic on maintenance from the effect of geography on maintenance?".

Q. Well now, you said that you would argue that your gross investment in bridges, tunnels and culverts captured the effect of geography.

A. Yes, sir.

Q. And you said you would look upon geography as curvature in this track maintenance account.

A. No ---

MR. MAURO: Just let him ---

MR. SINCLAIR: Q. Just let me finish the question and I do not think he will disagree that the effect of geography was measured by curvature and possibly grading, is what you said, that is the other addition you added to it, and possibly grading.

A. If I may I would like to add further effects which geography might produce.

Q. You would like to add that now?

A. Yes. You have erosion.

Q. Erosion of what?

A. Of subgrades.

Q. Yes?

A. You have repairing wash-outs, repairing road beds damaged by wash-outs, you have removing

dangerous rocks, removing slides, the cost of repairing the road bed damaged by wash-outs, all of which are part of it because of weather.

Q. And what I am suggesting to you is that you agreed you would have these things wherever there was a railway and in so far as maintenance was concerned these matters were not significantly affecting the group of accounts and expenses we were dealing with. I thought we agreed.

A. We agreed that the railway has these items everywhere you have a railway. My position is that in getting over and through the mountains you are going to have more of them.

Q. You think you are going to have more rock slides in the mountains than on the prairies?

A. More rock slides, more wash-outs, more difficulty in making track repairs in snow sheds.

Q. Let me suggest to you that on the CP there is substantial difficulty with wash-outs on the prairies.

A. I can well believe that.

Q. And the very nature of a flat terrain that the prairies are made out of tells us, from experience in studying history, are the places where flash floods are the most dangerous.

A. That is fine. I would add that to my argument as to the effect of geography.

Q. And it is no more difficult than they have in the mountains and that one balances the other.

A. This might very well be true, that is fine, and geography is important in the prairies also.

Q. Do you suggest in the east there are no such matters to be concerned with when we look at the basin that flows into the Great Lakes?

A. It might very well be true but in western Canada you have this heavy concentration of investment which is associated with a large amount of the traffic maintenance combined with the information we have on geography. This very strongly suggests a relationship which the statistical techniques supported.

Q. Well, Dr. Borts, I am going to suggest to you that as we have agreed that density in part in these, for instances, bridges, is a reflection of density, that what you have involved youself in is linearality.

A. If you will look at the bottom of page 5 of my precis you will see a denial of that position.

Q. Well now, Dr. Borts ---

A. I will read it for you.

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A. "Further, it should be noted that there is no significant correlation between this investment account on the one hand and any of the following variables taken individually: Gross ton-miles, yard and train switching miles, or miles of track."

Q. Yes, but mile of track -- what?

A. Miles of track.

Q. You are going to say there is no relationship between miles of track and the traffic that moves over the railway -- that your statistics show you that?

A. Oh, no, that is not what I said here. There is no correlation between this investment account on the one hand and any of the following variables taken individually: in other words, gross ton-miles, and then yard and train switching miles, and then miles of track. Each of these correlations is not significantly different from zero. As a matter of fact, gross ton-miles and miles of track are highly correlated in Eastern Canada but not in Western Canada.

Q. What you are saying is that the statistical correlation tells you this. I am asking you to apply the K test, and that tells you that statistics, no matter what it tells you is just wrong because, as you say, there is in fact a reflection in investment in road property and gross ton-miles?

A. I am afraid I don't understand your question, sir. Could you rephrase it.

Q. I will try. What you are saying is that the statistics say to me -- Dr. Borts -- that in the west as distinct from in the east there is no relationship between gross ton-miles and investment in road property -- no correlation.

A. No, sir. There is no correlation between gross ton-miles and investment in tunnels, bridges, and culverts.

Q. And bridges, tunnels and culverts reflect density? Density is reflected also in miles of track. I am just applying ---

A. This is a logical chain of reasoning which you have adopted but which runs up against the numbers. When you have a conflict of this sort you can throw out the numbers or the chain and I leave it to you to make the choice.

Q. Well, I accept "logic". Thank you very much, and you are not surprised.

MR. MAURO: No.

MR. SINCLAIR: Q. Dr. Borts, we will agree on this, that an analyst must not blindly follow statistical results?

A. That is correct.

Q. He, the analyst, must be wary that he does not get spurious correlations and accept them as being meaningful?

A. That is correct.

Q. In your equation 202A you altered the equation by eliminating miles of track.

A. Correct.

Q. And you substituted miles of track for one hundred dollars of investment?

A. In tunnels, bridges and culverts.

Q. Yes.

A. Yes, sir.

Q. Maybe we can see where my chain of logic was taking me: the effect of doing that was to bring about a minimum maintenance cost per mile of track of a reasonably low level, and you point that out on Page 6?

A. We agreed on that, yes sir.

Q. That, you said, was a minimum maintenance cost per mile of track of $468?

A. $468.97.

Q. Yes.

A. That is pointed out on page 6 in the second paragraph.

Q. My suggestion to you is that if your equation used miles of track as an independent variable without trying to introduce extraneous matters such as investment in bridges and tunnels, the result would give you a figure of approximately $1100?

A. You are probably correct in that too -- that is, in your number; not in your use of the word "extraneous".

Q. I understand. I am not surprised. There was no bite in the word "extraneous". My suggestion to you is that in view of what you said to

me earlier of the inter-relationship between the co-efficients, the fact that you on your own model found the mile of track maintenance cost of only $469 to be improper and unrealistic, in view of the inter-relationship of co-efficients, that we agreed earlier that this should in itself have been enough to have you, as the analyst, reject your equation 202A?

A. Right, which I did.

Q. Thank you. Just for a minute take a look at equation 202B?

A. Yes.

Q. You said on Page 7 of your paper that this equation or model of yours, 202B, indicates that differences in gross ton-miles -- and I am reading: "...that differences in gross ton-miles among divisions are not useful in explaining differences in track maintenance."

Do you see that?

A. What line is that, sir?

Q. It is the second paragraph, the fifth line.

A. Yes, I see that.

Q. "...differences in gross ton-miles among divisions are not useful in explaining differences in track maintenance."

A. Yes.

Q. What that says, Dr. Borts, is that the volume of the traffic moving over the track is not

reflected in maintenance expenses?

A. It doesn't say quite that. What it tells me is that the amount of work done on these divisions is captured by the other work variable we have and that the gross ton-mile figure does not give me any additional information.

Q. Let us look at your number and let us take the explanatory variables and see what it says?

A. If you turn to 202B you will see the work unit is yard and train switching miles.

Q. Well then, Dr. Borts, if I have a railroad, what you are saying to me is where I do only road hauling and I don't do switching, then I have no maintenance expenses on account of work done?

A. No, sir; that would be a very simplified and unfair interpretation of any regression equation derived from divisional observations.

Q. Well, Dr. Borts, you say that the variable switching picks up maintenance. I suggest to you that switching as an output unit cannot pick up road haul and the maintenance that is required by the movement of traffic over the line, by definition?

A. By definition, no, not at all. I think what we are doing is looking at two different problems and thinking they are the same problems. One problem is the goal of the cost analyst to identify the variation in cost with specific service units.

The other problem is the one we are dealing with now, namely, taking a regression equation derived from a group of divisions and trying to see what the work unit tells us -- how much of the variation in expense is explained by the work unit. I was quite disturbed by this because I felt because this equation did not give me a gross ton-mile work unit it left me quite unhappy. But the purpose of computing the equation was, however, as a check on the track maintenance figure.

Q. But once again, Dr. Borts, are we not up against this problem that no matter what statistics tell us we have to test that by what we know?

A. This is always correct, but we may think we know something which we think is applicable to the situation, when actually, if you turn the problem around, it is not really applicable.

Q. Let me test it by a very homely example which I think will assist me. We know that there is a high correlation in Sweden by the number of births and the number of storks' nests; we know that -- you know that, don't you?

A. I don't know, but I would take your word for it.

Q. All right. Notwithstanding that high correlation between the number of storks' nests and the number of human births in Sweden, the K test tells us, doesn't it, statistics notwithstanding,

that we must not assume that stork nests, and therefore, storks, have anything to do with human births; correct?

A. You are shattering one of my favourite illusions.

Q. Well, I know this, Dr. Borts, that it is always the job of a man of knowledge to shatter the illusion of a person who relies on statistics.

MR. MAURO: And you are the man of knowledge, Mr. Sinclair? Oh, the humility.

THE WITNESS: My wife will never believe this.

MR. SINCLAIR: Q. Let us give you another one, then: we know this -- and this is down in your country -- that the consumption of alcohol in the United States is highly correlated with teachers' salaries?

A. They say that work is the curse of the drinking class.

Q. You would not accept that statistic, except as a happenstance?

A. It may be very significant, however.

Q. It may be very significant if, in fact, it makes sense?

A. Yes.

Q. In Canadian Pacific you know, Dr. Borts, that in respect of traffic moving over the line the number of sectionmen, for example, per mile of track is varied?

A. Yes.

Q. And I suggest to you that your equation said that there are as many sectionmen -- and they are an element in track expense -- there are as many sectionmen where the traffic is low as there are where the traffic volume is high?

A. Are you holding the yard switching miles constant when you say that?

Q. Yes, relatively constant in relation to the volume of traffic.

A. Well, I think we are in agreement. I think we are agreed that this equation does not permit us to attach any costs to a running service unit, and that if we could attach it to a running service unit we would be happier, and this is one of the reasons the equation was dropped.

Q. And you reject it because of that?

A. Yes, partly because of that and partly because of the fact we wanted to get to a more realistic figure of minimum track maintenance, which we did, as described in the addendum.

Q. Well, we will discuss that, if we may, as to the realism of the figure, after the luncheon adjournment.

---Luncheon adjournment.

--- On resuming at 2 p.m.

THE CHAIRMAN: Order, please.

MR. SINCLAIR: Q. This morning, Dr. Borts, we were discussing gross investment in bridges, tunnels and culverts, and you said, well, you had the figures but they were not available at the moment, and you would look them up at the luncheon adjournment. You have done so?

A. Yes.

This is the gross investment in bridges, tunnels and culverts per operating division in the east and in the west. It excludes the terminal division; and they are approximately the same. The average in the east is $5.1 million dollars; in the west, it is $5.09 million dollars.

Would it be possible to describe the variation among the division in this regard?

MR. MAURO: You go ahead.

THE WITNESS: In the west, the variation around that $5 million dollars is between $2 million dollars in Regina and $15.7 million dollars in the Revelstoke division; while in the east the variation is between $2.3 million in the Woodstock division, as compared to $8.5 million dollars in the Sudbury division, so there is a much wider range in the west; a much larger standard deviation about the mean.

One of things which called my attention to the role of this factor was the unusual figure in the

Revelstoke division.

Q. While in the east, were you struck by the high investment, for instance, in the Dominion-Atlantic division?

A. Yes, that was $3.8 million dollars.

Q. Yes. And that certainly is not a mountainous country?

A. That is not mountainous; that is correct.

Q. We were going to then discuss, Dr. Borts, your model 202C?

A. Yes.

Q. I take it from what we have said that on reflection and in the light of the results that you received on your 202A model and your 202B model, that you came to the conclusion that they were not truly meaningful and that you determined them to introduce other variables and to explain the behaviourism of the expense track maintenance and depreciation?

A. That is correct.

Q. In doing this, you dropped from your 202A model three of the independent variables and you substituted one?

A. Yes.

Q. And you made a special calculation in respect of the two factors that were dropped in dealing with the track maintenance and depreciation expense?

A. That is correct.

Q. So, in 202C, what you did with respect to minimum track maintenance expense was you developed

a figure and you deducted this from the dependent variable track maintenance expense?

A. I and Mr. Banks developed the figure, but I carried out the calculations which you describe, yes.

Q. If the calculation for minimum track expense, apart from the $742.00 that you deducted from the dependent variable expense was wrong I suggest to you that this makes the co-efficients in your equation wrong?

A. Oh, I would agree with that.

Q. You would agree with it?

A. Oh, certainly.

Q. Now, I suppose, Dr. Borts, that if you had instead of deducting $740 odd from the dependent variable for minimum track expense, but that you had put minimum traffic expense as an independent explanatory variable in the equation, the figure for that minimum track expense would have been approximately the same figure as you would have developed for minimum track expense on your other equations; namely, approximately 1,100 odd dollars per mile of track?

A. I do not think your statement is clear. Let me rephrase it, and I will agree to it. All right -- if I had instead of adopting this procedure used the track mileage as an independent variable, then it is very likely that the co-efficient of that variable would have been in the range of $1,137.00; that is correct.

Q. And that would have been approximately the same figure as that independent variable working in your equation 202B; would it be? Not too far off?

A. That is the same hypothetical question applied to 202B; if in 202B I had used track mileage, we would have gotten in that range.

Q. Yes.

A. This is certainly possible, yes.

Q. Now, Dr. Borts, am I correct in this: that only in 202C of the models that you have presented to this Commission; that only in 202C have you not used an independent variable, but have made a calculation and deducted the amount extraneous of the equation development from the dependent variable?

A. That is, this is the only case where we use the dependent variable, which was other than the same dependent variable that the railway used in its co-relations?

Q. Or, it is the only dependent variable that have had deducted from it an adjustment extraneous of the classification of accounts group?

A. Yes, I believe that is correct; yes.

Q. Now, looking at your equation 202C, I suggest to you that if you had included mile of track variable instead of deducting, as we have been talking about, from the dependent variable the amount for minimum track maintenance per mile of track, you would have got a significantly higher R^2 from your equation, and you would have also had statistically significant

values of T.

A. Well, I had not done this but I will grant you the possibility of this occurring.

Q. Well then, assuming that that is right, that you would have got a higher R value and statistically significant values of T by putting this mile of track into the equation as an independent variable, why would you, as a statistician analyst, not have done that and received higher statistical values from the statistical tests?

A. Higher statistical values of what, sir? You mean why did we not proceed in that fashion?

Q. Yes.

A. Well, the answer is that we felt that proceeding in this fashion gave us a figure -- would give us a figure for minimal track maintenance which was above the figure which we felt to be the threshhold cost of track maintenance.

After all, the major use to which the railway puts the track maintenance figure is costing out what is called the track maintenance expenditure on solely related branch lines, and we felt that a direct calculation of the threshhold maintenance cost on solely related branch lines would be a more accurate procedure.

Q. But you see, Dr. Borts, I think that it is my fault -- my point to you was this. Leaving for the moment aside;what I am going to say is knowledge extraneous of the statistics. To determine what you are going to do by applying statistics alone -- that is,

statistical tests -- you would have had better results by putting into your equation a mile of track independent variable?

A. That is very likely, yes.

Q. Then ---

A. But the -- let me ask you one thing. Better results than what?

Q. Then what you got from the ---

A. Oh, but I think you are comparing two dissimilar figures. This .69, which I take it you are pointing to, on page 2 of my addendum refers to a different variance with the .827 which occurs on page 4.

In other words, you cannot just say, "Here is 69, and here is 83; one is smaller than the other".

Q. I was not putting that to you, Dr. Borts. I was taking your own equation. I was not taking your equation and comparing it with our R^2 values in the Canadian Pacific equation.

I was taking your own equation and dealing with it in this way: instead of adjusting your dependent variable; leave your dependent variable without adjustment, but put into your equation as an independent variable a mile of track?

A. Well, the answer is you would use the R^2, but you would also raise the multiplican against which the R^2 is being applied.

Q. This is right, but what I am saying ---

A. It is quite true that if I had left this

account unadjusted and followed the procedure you suggested, I would get a higher R^2, but the point is that this procedure is also a way of accounting for variation.

Q. You say this procedure -- you mean the procedure you adopted?

A. Yes.

Q. But the procedure you adopted was working extraneous of statistics to arrive at one of the explanations of the variability of expense track maintenance and depreciation?

A. That is correct, sir.

Q. And so my question to you, Dr. Borts, was that you set aside statistics in this case and applied what I would say experience and knowledge outside of statistics to arrive at your results?

A. That is correct.

Q. And as we agreed, the validity of this whole 202C is materially affected and would not be proper if this calculation 742 as the minimum maintenance is wrong?

A. That is correct, sir.

Q. Well, in 202C you made a choice of train miles as an explanatory variable instead of gross ton miles? Correct?

A. That is right.

MR. MAURO: I was wondering, Mr. Sinclair, for the aid of the Commission it is the second page of the addendum. Commissioner Anscomb, it is page 2 of the

addendum.

COMMISSIONER ANSCOMB: Thank you.

MR. SINCLAIR: I am sorry, sir. It is my fault. It is on the addendum; the 202 model.

Q. If I may recapitulate for a moment, Dr. Borts, what you did -- Commissioner Anscomb, the witness has said he took out as an independent variable gross ton miles and substituted train miles.

Now, Dr. Borts, you agree, I take it, that in track expense, which is the dependent variable we are discussing and that you were explaining with these dependent variables that track expense is affected by the speed of trains?

A. Unquestionably.

Q. You also agreed, Dr. Borts, that track structure, maintenance rail joints, switching points, other track elements are affected by the number and the weight of the cars and locomotives passing over them?

A. I would use the word "axles" but we would be agreed completely. It is the number and weight of units passing over.

Q. Now, Dr. Borts, I suggest to you that by taking train mile instead of gross ton mile, in view of your answers to me, you are saying that you have not given effect to the fact whether a train is being pulled by a train master of over 2,000 horse power or a road switcher of 800 horse power?

A. Nor have you, sir, since the gross ton mileage figure that we are all using is a trailing ton

mileage.

Q. So, up to there they are even. But you have not, I suggest to you, made any difference as to whether the train that is being pulled is one of 20 cars of one of a 100 cars.

A. That is correct.

Q. Or whether the cars being pulled in the train are loaded or empty?

A. Correct.

Q. In fact, what is disregarded is the number of cars; the weight of the cars; and in effect what we get down to is saying, Dr. Borts, that the explanation of track maintenance in regard to traffic moving over the line may be explained by counting cabooses?

A. If each train had a caboose -- caboose miles, sir.

Is it relevant to introduce certain material --?

MR. MAURO: Dr. Borts, you keep asking Mr. Sinclair -- do the things you think would be helpful to this Commission, Dr. Borts.

MR. SINCLAIR: I want to say to you, Dr. Borts, if you feel you want to add anything, I certainly wish you would do so.

THE WITNESS: All right, fine.

I would like to take a few minutes to add the reasoning behind our procedure in this regard, because we realize it is a controversial issue, and I might add

it is an issue that is not really settled among railway engineering people.

I would like to quote from a text entitled "Railroad Engineering" by Professor William W. Hay. He was at the time this book was written Associate Professor of Railway Civil Engineering at the University of Illinois. The book was published in 1953 by John Wyley and Sons, and I am quoting from pages 28 and 29, where he says that:

"Cost per train mile is used extensively in the following chapters in comparing the effects of distance, curvature and gradient --"

Q. Of what?

A. Upon the cost of running the train.

He does not distinguish on this point.

Q. Costs of running the train?

A. Yes, all costs of running the railway.

Q. What we are talking about here, you will agree, is track maintenance?

A. Let me finish the quotations:

" Cost per train mile is a satisfactory unit for such comparative studies".

That is on Page 30. At Page 368 in conjunction with rail life, the life of rail, he says:

"Gradient has an effect on rail wear, excessive wear and abrasion result from the use of sand and heavy brake applications."

At Page 368 he also says:

"If the effects of rail defects are excluded the service life of a rail varies with the traffic, that is with the tonnage, the axle loadings to speed the amount of curvature and the difficulty of maintenance."

Now, in checking this out what we did was to look at the figures on axle loadings which can be derived from both the source which I have just quoted and from the operating statistics of the different railways. We had to use operating statistics on box

cars for American railways but I think they are such that they can be applied here to see what the difference in axle loadings were. I would like to mention this now; I am going to mention steam locomotives because I understand they were in the grain service at the time the cost study was carried out although they probably have been withdrawn by now. No allowance has been made for that fact either by ourselves or the railway. On a Baldwin freight locomotive ---

Q. This is Baldwin steam freight?

A. Baldwin steam freight locomotive, a 484 locomotive the axle loadings on the drivers would be thirty-six tons per axle. On the loading and trailing axles it would be twenty-seven tons per axle. On diesel units the axle loadings are naturally smaller. On an electro-motive division deisel engine, a 1500 horse power electro-motive the axle loading would be 28.8 tons per axle. On a GE 5400 horse power diesel ---

Q. We have not any of those in Canada.

A. All right, we will stick to the EMD's. As far as cars are concerned, on box cars which have a load of 50 tons -- that is the U.S. average capacity and I realize it is slightly lower than the grain average but I will give you that in a moment -- on box cars that have a load of fifty tons the axle loading is eighteen tons per axle or ten tons per axle short of the diesel loading or eighteen tons

per axle short of the steam loading. That is a loaded box car.

On an empty box car the axle loading would be about six tons.

Q. That is taking on tare of what?

A. A tare of twenty-four and the other types of cars would vary around that, that is, dependent on whether they were loaded or empty. Now, taking into consideration the fact that the average load per car, that is the average ton mile per car mile on the Canadian Pacific which is about thirty-two tons, I believe --

Q. Exclusive of grain?

A. Exclusive of --

Q. 31.3, I think, exclusive of grain; fifty-four tons grain, is that about right?

A. Just a second and I will check it. This is the Canadian Pacific Railways report to the Dominion Bureau of Statistics and for 1958 we have average ton-miles per loaded car mile is 32.5 and that does not include any empties.

Q. My question was, the figure I was trying to give you was exclusive of grain and inclusive of grain.

A. Well, I do not have an adjustment for exclusive of grain; this is inclusive.

MR. MAURO: That is inclusive of grain thirty-two tons?

THE WITNESS: 32.5 tons which would mean an

axle loading of approximately thirteen tons on a box car, thirteen tons per axle. We are comparing average axle loadings of thirteen tons per box car, unloaded box car and six tons on empty box cars with an extra loading of twenty-nine tons on a 5400 h.p. diesel as well as an axle loading of 36 tons on a 484 steam locomotive, some of which were in operation at the time the study was made. So, this is the background for our position that these axle loadings were relevant.

One more point I should bring up; at last week's cost conference we came to virtual agreement that if we could have a physical measure which embodied both the axle loadings and the motive power unit and the weight of the trailing cargo cars ---

Q. Trailing cars ton miles?

A. Yes -- this would be the most desirable way of measuring the effects of traffic moving over the track. But, in the absence of such a unit existing a compromise had to be sought and all different parties to the controversy moved in different directions in seeking that compromise.

Q. You say all the axle loadings may and do vary dependent upon the load per car and dependent upon the locomotive because of the way diesels operate. I suggest to you, because of dynamic braking, with the improvements particularly in heavy gradient lines, that this is not as important a factor as it was to trace out when there was mostly steam?

A. I think everyone would agree with that, sir. If it were possible to cost out your line on a pure diesel basis I think we would all be happier.

Q. What I am saying to you also is this: by taking train miles and while you can get substantial changes in axle loadings by taking a 1500 h.p. diesel as against a car of grain, that when you get to 1200 h.p. diesels or branch line diesels that this is narrowed substantially?

A. Yes, that is quite true.

Q. And when we look at the matter such as we are discussing now we have to look at it in relation to where the grain is moving from and on what type of lines it is moving from and what type of equipment is working it?

A. Quite so. However, I am under the impression that most of the cars ton mileage on grain is on the main line.

Q. That may be so, in view of the fact that it must channel at Calgary and at Winnipeg?

A. Yes.

Q. But there is still very substantial mileage on what may be termed non-trunk lines cars ton-miles?

A. I do not think there is as much as you would think. I have a figure here which might help us out in that regard.

Q. When I say "substantial" I mean something like over 25 per cent.

A. Oh yes, we can get down exactly just by pulling out this work sheet. If you take the Kenora, Vancouver and Revelstoke divisions -- Kenora, Portage, Vancouver and Revelstoke as your trunk line divisions then seven elevenths of the grain is automatically accounted for on those divisions, the gross ton-miles.

Q. Yes, and as I pointed out to you, for instance, the Canadian Pacific in its freight operations diesels in the west of Calgary operation. That is where we were using diesels in this study; correct? So that these factors are an appreciation of it which arises from the way the traffic moves and how it moves.

A. Quite so.

Q. One of the things that you as an analyst, Dr. Borts, do want to be careful about, and I think you have been very frank about this, that in taking the train miles you are not overlooking a very material part of the work affecting track maintenance, affecting car ton-miles?

A. Yes, a question of making a compromise with the data in order to be able to handle it.

Q. Except, in taking train miles you are unable to reflect anything as to variation in length of train or weight in cars?

A. Well, I agree. I think the real problem here is, you are dealing with a large number of factors any one of which can affect track maintenance and the problem is to put your finger on the most important.

Q. Now, Dr. Borts, I want to turn to your

equation account 266, shop and engine house maintenance and depreciation commencing at Page 7. At the bottom of Page 8 of your paper the model that you have adopted for costing of grain, as well as the model on Page 10,—I want to draw your attention to the model on Page 10 which you have adopted as explanatory of expense variabilities cost factors power plant maintenance and depreciation and also the model on the top of Page 12 which is a model that you have adopted as explanatory of the group of costs being despatching and station employees. Now, those three models were developed by pyramiding?

A. That is right, sir.

Q. And you do not in any of those three models give an R^2 or the T value of the co-efficient in the model?

A. That is correct. When you develop these relations by pyramiding it would be extremely difficult to derive for the final equation a test of statistical significance. In developing these models I relied on the tests of significance which were applied to the equations before they were combined in the above which has been described as pyramiding. I did not use the term pyramiding here, by the way, and as far as I know the first place I saw reference to it is in a book called the Economics of Competition in the Transportation Industry by Mr. Mr. Meyer, Mr. Peck and Mr. Zwick.

Q. I have read that book. If we keep using

it so often --

A. I do not think it is offensive in the way I quoted the reference.

Q. I do not think it is offensive in any way because pretty soon we will have it on the best seller list. I have heard that since this Commission started its sales have sky-rocketed.

MR. FRAWLEY: The Commission should get a royalty.

MR. COOPER: Sold only to the best people.

MR. SINCLAIR: Q. And now, Dr. Borts, you said that you looked at your T values in the various equations that were used in arriving at the final model?

A. Yes.

Q. And I suggest to you as a statistician you will agree that once you pyramid into a final model the key values of the individual equations cannot be related onto, say, that the T value of the final equation will be statistically significant?

A. Oh, I would agree with that.

Q. Now, looking at shops and engine houses for a minute, that is your final equation on shops and engine house maintenance at the bottom of Page 8 of your paper. Now, my suggestion to you is this, that if the work, taking this final equation and forgetting about the pyramiding which were prior steps in the development of this equation, you will find that you will get meaningful R^2 and that you will get

T values that are meaningful but your cost co-efficient on your independent variables will double. In other words, the cost ascribed to grain will be twice as much as it is by using the equation that you have?

A. I do not believe it.

Q. Well, Dr. Borts, I will then ask the people that I asked to run this for me to let you see it.

A. Fine, very good.

MR. MAURO: This is what I thought the cost conference was for.

MR. SINCLAIR: This happens to be the way a lawyer thinks and a statistician does not generally think of doing things directly and when they do things directly this is the way a lawyer thinks. This may be a surprise to quite a few people.

MR. MAURO: Perhaps he should have been at the cost conference.

THE WITNESS: Mr. Sinclair, I should point out that a question was raised about this equation at the cost conference and I agreed to go to my notes and check them out. The point which was raised at the cost conference was that if the maintenance and depreciation on shops and engine houses were affected directly, yard and train switching miles, in the manner in which you suggest then the R^2 value would be achieved of .65. Now I checked out this figure and in a memorandum which I sent to the staff of the Commission and Mr. Stenason as well, I checked these

accounts, my own figures and found nothing of the sort could be arrived at. Now, this means either that the description of the equation is necessarily so or Mr. Stenason and Mr. Romoff have a different model in mind from a simple regression.

Q. Well, what I said --

A. And the only thing I can suggest is that this be worked out with the staff because we are obviously up against a disagreement as to what the numbers said.

MR. COOPER: Mr. Chairman, I would suggest Mr. Sinclair let this matter drop at this point and the cost experts can work it out between themselves.

THE CHAIRMAN: Yes, I think so.

MR. SINCLAIR: Q. Quite so. Looking at your model on Page 8, shop and engine houses maintenance and depreciation, would this be a fair interpretation to draw from it, Dr. Borts, that this equation is saying that the group of expenses described as shop and engine house maintenance and depreciation is a constant term and aside from that is acceptable by yard and train switching miles?

A. Yes, sir.

Q. In other words, yard and train switching miles explain a variability in maintenance of shops and engine houses?

A. Yes, sir.

Q. Well, Dr. Borts, assume with me that the Canadian Pacific then contracted all its switching

in view of your answers, I suggest to you that they would not need any shops to repair their box cars running over the road and their locomotives?

A. I am not sure I see the point of your question, sir. Could you say that again?

Q. You have said to me that what your final equation did was to say that yard and train switching miles explain the variation in shops and engine houses.

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A. It explained it in a statistical sense. You are aware this is not a technological relationship in a sense.

Q. Well, if it explains it in a statistical sense, it has to make sense in a proper casual relationship or you will not accept it, as an analyst?

A. Could you give me the example of a casual relationship again?

Q. Casual relationship is a negative one that I put to you, and that was, that if the Canadian Pacific contracted out its switching, then it would not have any shops or engine houses?

A. It would have fewer.

Q. It would not have any variable expense.

A. Oh, variable?

Q. ... shops and engine houses.

A. Variable expense?

Q. Yes.

A. I see your point. Your point is, if your switching were done by some other company so that each division showed up a zero percentage for yard and train switching miles, then we would never have gotten this equation.

Q. That is what I say to you, that the result of your equation, showing yard and train switching miles is the only factor that explains variability in maintenance of shops and engine houses, is wrong?

A. You see, you run into this interpretation

with any equation. Let us back to you own equation at the bottom of page 7 which is labelled 235: suppose you contracted out the equipment maintenance but agreed to repair the buildings yourself. Well, according to this equation, if you contracted out the equipment maintenance, there would not be any maintenance of the buildings.

Q. If you contracted out the equipment maintenance?

A. And agreed to repair the buildings yourself.

Q. But surely, Dr. Borts, if you contracted out the equipment maintenance you would not need any shops for equipment maintenance.

A. Suppose you said, "Come into my shops and do my repairs for me".

Q. Well, the answer to that is that you would include in the cost of turning it over to somebody, the buildings.

A. Well, you would include in this equation the amount of switching work they did.

Q. With all due respect, Dr. Borts, I say the things are not comparable, and I will give you a practical example. There is a railway in Canada known as the Quebec North Shore and Labrador.

A. Yes.

Q. And it operates very heavy trains?

A. Yes, sir.

Q. And it operates as a line haul carrier

with another company doing the originating and terminal switching, and it is a trunk line: are you suggesting to me that in respect of the shops and engine houses of the Quebec North Shore and Labrador that they do not vary because they have no switching?

A. No, what I am saying is, if you are dealing with divisions of a railway which do switching and line haul, then it is perfectly conceivable that one of the cost accounts is going to be explained by the switching function alone. In the hypothetical example you gave me, if it turned out some of these divisions did no switching I would not have used switching as an explanatory variable. It would not have been a desirable work unit because it would not express differences in the amount of work done in the different divisions.

Q. But we know shops and engine houses repair equipment that is worn out both in road haul and in switching?

A. That is correct.

Q. And you have given no weight to the fact that these shops and engine houses do effectively work on road haul repair?

A. Agreed.

Q. Now, would you ----

A. Are you going to pass away from that equation, because I would like to make a statement in regard to the rationale for the procedure there. We did not depart from the Canadian Pacific's equation on

frivolous grounds. The reason I felt it desirable to give up the equation which they use, which I describe at the bottom of page 7, is that I felt it represented simply a proration of the shops and engine house maintenance among the different districts of the railway, and that as a consequence of representing a proration what it did was to set a very high percentage on variable cost. If you look at the back page of my submission, page 43, I think that you will find that the total constant cost for the construction in the account is something like $81,000.

MR. MAURO: Where abouts is that?

THE WITNESS: On page 43, account No. 235. $81,200 is the total constant cost in that account. At the same time, the railway reports a total maintenance expenditure in that account of a vastly larger figure which I will read into the record as soon as I find it. The railway's account of the maintenance alone of shop and engine houses is $2 million, and the depreciation is a correspondingly large figure. So, in effect, what the railway procedure does is to regard the total amount of this maintenance expense as a variable expense directly variable with traffic. We felt it was inaccurate especially when you are dealing with the maintenance of physical structures which are not themselves forming traffic service, and as a consequence we felt it desirable to attach this cost to a service unit.

MR. SINCLAIR: Q. And you never did that

in any of your equations?

A. Never did what?

Q. Not accept a relationship with a non-service unit? I suggest to you in one of your own equations you did exactly the same thing?

A. I would appreciate it if you would point it out.

Q. It is in one of the pyramids, as I recollect, on page 10.

A. Could you refer to the equation, please?

Q. It is right at the top of page 10.

A. And in the active pyramidding what I did was to fit the dependent variable to an investment variable and then wash it out.

Q. But earlier you said you were satisfied to accept significant values, statistically, from the steps that you took in building the pyramid to the final equation?

A. That is correct. I might add the reason for using investment as a means of making the pyramid is the fact each of the accounts includes depreciation which is simply a percentage of what you happened to carry on your books as gross investment.

Q. Oh well ---

A. It is not simply a percentage. Excuse me. There are differences in depreciation methods, depending on whether it is straight line or declining balance. But, you will agree that the depreciation figure used is derived from the gross investment.

Q. It is derived from the gross investment to reflect, on a turnover method, the life that is going to be used, and the use of the asset, and therefore it does affect work done; correct -- even on a straight line depreciation?

A. Well, straight line depreciation may have no relation to work done.

Q. But straight line rates are changed to reflect on the basis of the turnover method?

A. When they are changed, that is correct.

Q. And any straight line put in and not changed is not a realistic straight line rate, if it is not measuring work changes over technology and time?

A. There are some straight line changes which may not be realistic simply from the year chosen also.

Q. Of course, Dr. Borts, your explanation was a rather interesting one, but now just try to apply your explanation to the second one from the top of the page -- not investment; but, the next one.

A. Yes, we found there that the relationship which you people had fitted, that I have described on page 9, actually held in the east.

Q. So, while it was no good when we did it, when you did it you did accept it?

A. No, we just did it where we thought it was significant.

Q. And the Canadian Pacific did where they thought it was significant?

A. Yes, sir.

Q. Now, we are into this question of your suggestion of allocations, or what you call prorations, and I remember a little phrase of yours that you did not like prorations, and I suppose the way you would approach costing would be in this order: first, direct is the preferable method?

A. By "direct" you mean direct identification of service units and a direct computation of the percentage variability from some engineering figure if possible?

Q. Yes.

A. That would be the best, yes.

Q. Second, regression?

A. Yes.

Q. And thirdly, prorations, unless the prorations were based upon engineering data?

A. Yes, I think that would be fair.

Q. I find this just a little difficult to follow: when you call something a proration, but that you have a constant term, how can you prorate something if you have something left over?

A. You might have a five dollar constant left over in a $10 million account. For all practical purposes it is a proration.

Q. But for all practical purposes it may mean only that the equation has shown you that the matter you are dealing with is, in fact, highly variable?

A. I would grant you that.

Q. Now, Dr. Borts, we have been talking about this pyramidding, and I think maybe if we could look at your equation, with which we have been dealing, and may I draw this to your attention: if you try to pyramid, what you have done is taken west, east and then system on top to arrive at a final model, and I suggest to you if you are going to pyramid you should pyramid from the same base, because you have certainly got a queer looking pyramid where you have got the thing on top bigger than the base, and that is what you have got.

A. Could you explain which equation you are referring to?

Q. The one we have been talking about on page 8.

Q. This will apply any place -- you have done this on other equations, but where you have taken east, west separations in the steps to a final step, the system, and applied this on top, and we have , for instance, to arrive at your final result, you have got a pyramid which looks like Atlas holding up the world.

A. Well, I am not an art critic so I cannot say what it looks like.

Q. But it is a queer looking pyramid.

A. The pyramid is required by the necessity of staying within the rules of statistical significance. I certainly could have computed equations separately for east and west, but I would have gotten beyond the

significance levels which I wanted to set for myself.

Q. May I draw to your attention you get some pretty poor significance levels when you get an R^2 or a variance explanation of 26% -- and that is what you have done here.

A. Last week we argued for about half a day on what a healthy 6% meant, and I would refer you back to your own people. The question of what a poor R^2 is or what a good R^2 is is something you really cannot decide. The only test we have is significance. I think what you are saying is, we have not explained a large amount of the variations, and I would agree 26% is less than 100%.

Q. You would also agree statisticians generally are looking for variance explanations of around 50% or better?

A. I would not use any a priori figure to that, sir.

Q. You are saying to me that statistics you must look at when you get a small percentage of variance explained, you must look at the units that you are using to explain the expense to see if they can stand the K test.

A. That is correct.

Q. On power plants maintenance and depreciation, your final model, on page 10.

A. Yes, sir.

Q. What you did here was, you took maintenance depreciation in power plants and developed

a coefficient for investment in power plants, and then you regressed power plants and investment in shops and engine houses, substituted that regression by investment in power plants in the first equation, and then you regressed investments in shops and engine houses with yard and train switching miles and substituted that for the investment in shops and engine houses in the second equation?

A. That is right.

Q. Once again, if you do it the lawyer's way -- that straight-ahead way, which you have enabled me to draw to your attention -- and if we take these power plants and regress directly on the basis of yard and train switching miles, once again I suggest to you that you will get a meaningful R^2, and you will get a statistically significant variance of T and the only difference again will be the materially increased value of the coefficient.

A. Could you tell me what those numbers are, sir?

Q. Tell you the numbers?

A. Yes. You described a procedure which conceivably might be tried.

Q. I will give you the detail of it; Dr. Borts, and just as in the other cases if you have any comments on it I would suggest they be written to the staff and I will not try to go through the regressions with you.

A. In this case, though, you have claimed

something which I have not seen, and perhaps you could put it on the record.

Q. I suggest this would give you a coefficient -- and this is the only figure I am interested in -- of about 24 instead of .2.

A. Where is the decimal?

Q. .024 instead of .012.

A. .024 times yard and train switching miles.

Q. Yes.

A. And what would the R^2 be?

Q. The R^2 I have not got.

A. And would that coefficient be for the east, the west or the system?

Q. I am working on your equation.

A. For the west?

MR. MAURO: I assume this must have been worked out by my learned friend since Thursday, because we assumed this was the kind of material that, if we had different numbers, the experts were going to discuss it.

THE WITNESS: No, this was not shown to us last week.

MR. SINCLAIR: This I will say, that it was worked out at my request and I will very gladly give it to Dr. Borts and to the staff.

THE CHAIRMAN: And you so request?

MR. SINCLAIR: Oh, yes -- I so offer.

MR. MAURO: He offers it. We say, give them the material -- this is the first time we have heard

about this.

MR. FRAWLEY: Mr. Chairman, this cross-examination is not to be equated with the cost conference. I am concerned, if my friend has something -- he said it was developed at his request: he means subsequent to the breaking up of the cost conference.

MR. SINCLAIR: When I started to work on this material and tried to prepare my cross-examination ---

THE CHAIRMAN: He is not asking Dr. Borts for an answer now.

MR. FRAWLEY: He is not?

THE CHAIRMAN: No.

MR. SINCLAIR: Q. Certainly, I agree, Dr. Borts, I should give you the calculations, and I must say I did not do them because I cannot; but, somebody did.

A. Well, somebody had a busy weekend.

--- A short recess ---

THE CHAIRMAN: Order, please.

MR. SINCLAIR: Q. Now, Dr. Borts, when you are dealing with the maintenance -- by the way, I mentioned to you a figure of 24 instead of 12, and that figure should be 25.02545.

A. Yes.

Q. Now, your equation and your treatment of power plants is that you explain the variability in this account by looking at one variable in the west and an entirely different independent variable in the east?

A. That is correct.

Q. Now, could you tell me, Dr. Borts, -- I find this extremely difficult to understand -- why you would find a completely different variable in power plants, variables explanatory, in the east as against the west?

A. Well, I think when I was being examined this morning I read in the vast range of property items which come under the heading of Power Plants, and I think the explanation is related to the different elements of power plants which are likely to be maintained in the two sections of the railway as well as the different kinds of traffic which are likely to predominate, and therefore likely to explain the variation of this account. Let me add one other point. It is my understanding from the cost conference that the power plant maintenance and depreciation was treated as a constant by the Canadian National Railways

and not allocated to any service units, so there is a third possibility which we have overlooked; namely, its complete lack of relation to the traffic entirely.

Q. Well now, Dr. Borts, just like removal of snow. The removal of snow in the Canadian Pacific study and in your study has been treated as a constant throughout?

A. Yes, that is right.

Q. Yet, we know that snow removal is in part reflected by traffic; because the volume of traffic that is moving over the line is how much times you have to move your ploughs, switch out your switches and things like that. Notwithstanding that knowledge, because there was not available dependent variables when you measured it, it was treated as constant?

A. Yet, it was not regressed on any other maintenance item, either. It was treated as constant.

Q. It was treated as constant?

A. Yes, I appreciate that.

Q. What I am saying to you in respect of this, Dr. Borts -- and I think we are in agreement here; I just want to make sure.

My difficulty is this, and maybe I can put it in this way. You say that the number of station employees is meaningful in explaining the variability in the east?

A. That is correct.

Q. But the number of station employees is not meaningful in explaining the variability in the

west?

A. That is correct.

Q. And what you say is that the number --

A. By the way, it is not number of employees; it is dollars of employee expenses.

Q. Yes, quite right. Most of dollars of expense is numbers wages; you would agree?

A. Yes, yes.

Q. The thing that keeps bothering me, Dr. Borts, in trying to understand is that it seems to me clearly evident that by using as your explanatory variable investment, you are involved in many difficulties of price level and that is a very major factor that you do not adjust for, and then when you look at it that notwithstanding the fact that there is a correlation that is acceptable to you of numbers of employees in the east, that you won't even put that into the west?

A. It did not go in because it was not significant.

Q. Because statistically it would not give a proper relation?

A. Right, and I have to keep repeating that in any of this work I limited myself to the rule of statistical significance, which I set for myself in advance.

Q. I see. Then, if knowledge tells us that, notwithstanding the statistical matters, if knowledge tells us that there is a correlation between

employees and maintenance, then you would accept that?

A. If knowledge told me that this variable was important, then I would rather construct a co-efficient than accept the co-efficient which an insignificant estimate gives me, because an insignificant estimate is no better than a guess. But a constructive co-efficient at least has the advantage of having an engineering basis for it.

Q. We are going to get into that in just one half second, and maybe this is the time we should do it.

You, of course, in this equation are again faced with some problems on your statistical test because you have noted to the Commission you cannot apply statistical tests to your final model?

A. Not to the provided equation, that is correct.

Q. To your final model on which the cost attributable to grain is based?

A. Correct.

Q. Now, you turn to the next model that you substituted, and that was inspection station employees as dependent variable, and you reject this Canadian Pacific model because you say the values of T are not statistically significant?

A. Correct.

Q. In two of the co-efficients?

A. Yes, sir.

Q. Now, Dr. Borts, you say in your paper

that you would accept an equation being statistically significant at a five per cent level of error in the individual co-efficient?

A. Yes, sir.

Q. The reason you set this limit -- is it because you want to eliminate the chance of accepting as a unit cost for grain anything that may have a probability of more than five per cent chance of not being due to the movement of traffic?

A. Yes, sir.

Q. When you say five per cent, I take it you mean plus or minus two and a half per cent?

A. You better explain that to the Commission, sir.

Q. Well, if you look at Page 16 -- and maybe I can do this very quickly. If you look at Page 16, and let us understand it, Dr. Borts, and see if I understand it right. You get a T value and then -- let me say how I do it. I get a T value, and then I go to the book and the book tells me that if I have a T value of this, and I have a certain equation, and if I apply that equation, I will get my percentage by applying the formula. You may know how to do it without looking at the book, but I look at the book.

A. We both look at the book, sir.

Q. Looking at Page 16, you show various T values and then you do your probability error factor arising from these specific T values; and, for instance, in the one you are working at, it depends on the shape

of the bell curve of probability, and you have adopted a 23 --

A. Degrees of freedom.

Q. Yes, which I think you developed by taking the number of observations, subtracting the number of the independent variables, and that gives you the degree; correct?

A. Almost correct. Well, it is the number of observations minus the number of independent variables, minus one.

Q. Minus one?

A. Yes.

Q. I'm sorry.

And there you set sign ignored?

A. Yes.

Q. And that means that five per cent means sign ignored plus or minus five per cent?

A. Yes, sir.

MR. COOPER: Mr. Chairman, at this point I would like to bring to the attention of Mr. Sinclair and the witness a point of disagreement in the statement filed this morning and taken into the record and related to Page 14, line 24; to Page 17, line 26. And in the transcript at Page 19140, line 11 to Page 19144, line 7.

MR. SINCLAIR: Oh, yes, I see that, Mr. Cooper. I must say that I am not going to get into this question any further than on a touch level for the question I have coming up.

MR. COOPER: I might just read the extract from the points of disagreement to the chairman:

"We would object to the discussion of the use of a five per cent probability level on two grounds: first, that the appropriate test to apply is a one-sided test and that therefore when Dr. Borts quotes a probability, as for example the 14 per cent, it would in fact be 7 per cent. It was agreed that this point should be argued in effect before the Commission staff by correspondence, and could not usefully be dealt with in formal hearings."

And I am just wondering at this point, Mr. Chairman, if we are getting into an area which was agreed at the cost conference should be dealt with by means other than cross-examination in public hearings.

MR. SINCLAIR: Thank you, Mr. Cooper. I hope not, because I have just a smattering of knowledge in this, and I certainly do not want to get into this one, I can assure the Commission of that. I will leave that to Dr. Borts and Dr. Hay, and Dr. Armstrong, with pleasure.

Q. I just wanted to put this to you, Dr. Borts, because you made a point of what I am trying to get at, and it is not a highly technical one, I hope. I refer you to Page 19109 of the transcript, Volume 116, in which you said, in answer to my friend Mr. Mauro:

My reason for reading this to you is why are you interested in the negative value when you say this:

"The T test is a test of the extent to which this slope is either positive, indicating there is an influence, and the extent to which it may be regarded as zero."

A. Oh, yes, sir, I recall that. You want to --

Q. I have not finished.

"...and the extent to which it may be regarded as zero, in which case there is no statistical influence".

A. Yes, sir.

Q. And you might as well substitute an informed guess; that is what you said: if you did not have a proper level of accepting or rejecting on a statistically significant basis, you might make a mistake?

A. Yes.

Q. The question I want to put to you is just this simple question, and in view of your sign ignored, and what you said, I want you, if you would, to tell me and through me the Commission, when you use a negative co-efficient in costing?

A. Yes, sir.

Well, you will recall when I gave my direct testimony that I was referring to a hypothetical example on a blackboard, in which there was a simple

relation between cost and output in which the slope was positive. And the question was then put to me about the T test and I described it at that time because of the shape in which the slope existed. You want to know when would a negative co-efficient come up in costing?

Q. When would a negative co-efficient be used in costing; or, in other words, to complete your matter, instead of the slope being positive it was negative?

A. Well, I can think of two or three examples, which I might wish to put on the record.

One example would be where the cost equation fitted was of -- not the linear form, but a quadratic form.

Q. That you have got hydraplanes?

A. I will explain it.

By a quadratic form, you simply mean a curve in which there are X term and X squared term, and depending upon the shape of the curve some of those co-efficients will come out as negative.

Another example of where negative term might come out in costing is where a output variable is actually a proxy for some characteristic of the sample which was being examined. This once occurred to me in doing a cross-section study of the railways of the United States, where I discovered that I had fit a cost equation to data and had used empty car miles as specific independent variable, and I got a

highly significant but nevertheless negative co-efficient.

It turned out, upon further examination of the data, that the empty car miles were negative because I had included in my sample the Pocohontas Railways which, as you know are a coal carrying road, which have very heavy empty return. And, yet, because of the method by which coal is gathered, there are substantial economies in certain types of handling costs.

Here is a case where you would have a negative co-efficient which was statistically significant If you were asking me where do you get a statistical significance with negative co-efficients, I have given you two examples.

Q. That is not quite my question.

A. Well then, I have wasted your time. I'm sorry.

Q. No, you have not wasted my time; you have helped me a lot, and I thank you for it. But I want to say this: would you apply in ascribing costs a negative co-efficient?

A. Oh, hardly. There would be a very peculiar railway that had negative variable costs.

Q. If you are not going to apply it, then why do you look for it and test against it?

A. Because I have no apriori grounds that it is not going to show up.

Q. I suggest to you that you gave me a nice algebraic word a moment ago, that the reason why the

texts on statistics, Dr. Borts, some of them talk generally about these confidence intervals at a five per cent level, is because in certain regression work negative co-efficients are extremely meaningful?

A. I would agree with that.

Q. And a good example, I would think -- and it is a kind of homely one, and one that a lawyer understands -- is I am trying to find the days of rain in Victoria, and so what I do is to take a constant term, and then I also have to take the days of sunshine as my independent variable. And certainly I am going to come up with a meaningful negative constant to arrive at the days of rain in Victoria.

COMMISSIONER ANSCOMB: I think it should be pointed out that the rain is variable and the sunshine is constant.

MR. SINCLAIR: I recognize, sir, that what I was using was Chamber of Commerce data and this source may have led me to error.

COMMISSIONER ANSCOMB: Now you are getting into the chamber of horrors.

MR. SINCLAIR: Q. Leaving that for a minute, would you look at your account on despatch and station employees?

A. Yes, sir.

Q. Here again being pyramidded on the final equation assuming R^2 and no T value for the reasons we have discussed in the other pyramidded equations.

A. Yes sir.

Q. The question I wanted to ask in looking at this and considering the choice of the variables and particularly the choice of gross ton miles as a variable, I am looking at the final model on the top of page 12, did you take into account the evidence that was given to this Commission of the special study of the work and time of station employees of Canadian Pacific?

A. No, sir.

Q. That evidence showed, Dr. Borts, that time and work of station employees was largely attributable to traffic originating and terminating at

the station. Do you remember?

A. I said I had not seen the study, sir.

Q. It was referred to and the actual figures were put in evidence by Mr. Emerson and reference was made to it and material was supplied to the costing experts.

MR. MAURO: Was it at the conference?

THE WITNESS: No, it was not.

MR. MAURO: I thought that was what the conference was for.

MR. SINCLAIR: It was already in the record, Mr. Emerson put the actual figures in the record.

MR. MAURO: Mr. Bandeen did not bring it up.

MR. FRAWLEY: Then Mr. Sinclair should not be cross-examining on it if it was not referred to at the cost conference.

MR. SINCLAIR: It was referred to in Mr. Emerson's evidence. It was put in in data that was made available to my friend many, many weeks ago.

MR. MAURO: I am amazed that the experts spent three or four days in Montreal and ----

MR. FRAWLEY: You cannot get any help anyway, he has not seen the study so you have to go on with something else.

MR. SINCLAIR: Q. Now, by taking gross ton miles as an acceptable variable, assume with me that constant employees worked, the major factor in it is traffic originating and terminating and if you use gross ton miles as an acceptable variable -- we will

take the Schreiber division as an example where there would not be a large amount of originating and terminating traffic in relation to the total gross ton miles, and therefore, by using your basis you would in effect say that as the gross ton miles were high on this subdivision therefore there should be a large number of station employees.

A. Yes, this could conceivably introduce an effect of that sort.

Q. Now, Dr. Borts, would you take ---

A. Could I make one point, by the way, now that it occurs to me? I think one of the reasons why the railway failed to get a decent coefficient for the carload variable on page 10 at the bottom and one of the factors that should be brought out here ---

Q. Would you mind if I stopped you?

A. Yes.

Q. A statistically significant coefficient according to your light.

A. According to my lights is that the mileages you have are for carloads originating and even they are very poor measure of the total volume of carload traffic which is handled in a station. You do not have this originating terminating handling figure which would be a much better figure for the purpose of costing out station expenses. I suspect this is the reason why the value of T is below 2 there. When I saw what kind of carload figure it was I felt that it could not be used for this purpose.

Now, I have no a priori objection to using carloads in costing out stations, I want to make that perfectly clear, but I want to make it also clear that the appropriate figure for this would be a measure of the total volume of carloads handled in the operating unit.

Q. If that was your reason for not accepting the CPR model, why did you accept l.c.l. carloads in your model where the same disabilities that were disturbing you on the carloads on the CPR model existed.

A. Purely on grounds of significance.

Q. In other words a priori only told you that you must discard carload ---

A. No, it did not tell me I must discard carload. What it told me was you had tried carloads and you had not got a statistically significant fit.

Q. And you say the reason for that is ---

MR. MAURO: Now, let him finish. Dr. Borts give your answer.

THE WITNESS: I felt the reason for this failure was the fact that the carload data are only carloads originating. In the case of l.c.l. carloads the fit was significant and I felt it was, therefore, even though the data may not be adequate, it might still nevertheless be desirable to keep it in the model.

Q. My point to you was that if carloads originated was not a proper basis for using carloads as

an explanatory variable ---?

A. Why is l.c.l.?

Q. Why is l.c.l. with the same disability accepted by you as a proper explainable ---

A. Well, my criteria of choice was a combination of statistical significance and the K factor, namely, how the data are arrived at. I was willing to accept this l.c.l. carload figure even though it could be improved upon because even the l.c.l. carloads originated seemed to bear relationship with the cost and expenses.

Q. Well, you have again, Dr. Borts, taken the position that if --- it is down to a question of where the disabilities in carloads equal to the disabilities in l.c.l. carloads are greater then taking the gross ton miles in the supposition that gross ton miles are not a proper measure of employees working.

A. There is a matter of judgment involved here, yes.

Q. And so that certain tests may be applied to see whether that judgment is accurate, there would be tests on the ground looking at station work?

A. A station study might be one way of doing that.

Q. And now, gross investment which is at page 13 of your submission, once again, this is pyramidded?

A. No, sir.

Q. Not pyramidded?

A. No, sir.

Q. This is not pyramidded. I am sorry, you are right. This is one that is separated, group separation and individually regressed.

A. Yes, sir.

Q. Did you apply co-variance in this before you decided to do your grouping?

A. The co-variance which is in there the co-variance test which the railway ran which was a test of the old model of east and west. When I fitted this thing separately I felt that the coefficiencies were so widely at variance with each other I did not run a co-variance on it. I simply kept it as it was.

Q. Even though the co-variance test and the uses of it that you described in your article would have suggested that would have been something you would have relied it on in view of the article.

A. As I say, I looked at the railways co-variances and accepted it but I knew there was no statistical difference between the model they have had east and west. What bothered me about the railways co-variance was one of their co-variances has a very low T value, 1.87, you will notice at the bottom of page 13. The consequence was that I felt a newer model was desirable. Now, the reason why a co-variance test could not be worked out here was simply because there are not enough observations to allow it to be done. As you are aware, there are 15 operating divisions in the west and 12 operating divisions in the east.

Q. I would rather take that as 17 and 14.

A. Well, for some purposes you count them differently. There are grounds for argument as to what are the operating divisions. You understand this is the terminal divisions?

Q. Yes. But, Dr. Borts, the point here that I would have thought disturbed you was here you have in the west the variability under your equations is explained by gross ton miles and miles on track.

A. Correct.

Q. But in the east it is gross ton miles alone.

A. That is correct.

Q. And unless you have knowledge of different operating characteristics, in view of the fact that we are dealing with a road maintenance expense item ---

A. No sir, it is gross investment in road property.

Q. I am sorry, thank you, Dr. Borts. As we are dealing with an investment in road property factor, unless you had specific data that would show you that there were differences, east versus west, you should not have come out with different independent variables to extend dependent expense.

A. Well, I did not understand the imperative in your statement. What I tried to do was use coefficients that were significant if the split was performed. I might add that I tried to use miles of track in the east and it turned out that miles of track

was not statistically significant and, therefore, I dropped it.

Q. Well, you see, what I suggest to you that you have overlooked is that in your equations you have nothing to indicate yard train switching?

A. That is correct.

Q. And in view of the fact you are dealing with road investment, this is a very material factor.

A. Well, I would agree that road investment covers yard tracks and running tracks and all the other items we spoke about before, power plants and stations and shops and engine houses, that is all included in this road investment. In road property what we are trying to do is relate this gross investment to a work unit.

Q. Well, Dr. Borts, if you could have been satisfied as to the value of T on one of the coefficients in the CPR model then you would not have rejected it. Is that basically what your problem is?

A. Yes, sir.

Q. Having come to the conclusion, basing your test on how they test coefficient and you felt you would have to go and look for some dependent variables that would give statistically significant results.

A. Yes, sir.

Q. Even though they may have difficulty of being explained on the basis of the knowledge of the operation.

A. Well, I am not sure I understand your last point.

Q. You would accept these independent variables even though they did present some difficulty in the use of them from knowledge of operation of the railways?

A. That is a very vague question, I am not sure I know what you mean by knowledge of the operations of the railways. There are many types of railway service that may call for more exceptions that will not be corroborated in your equation or mine.

Q. What I am talking about is the east and west split and the actual use of the internal variable for the exception involved.

A. There is the question of whether it is understandable or not.

Q. In other words, what you have to do, in view of the equations you have got, you are up against the K test from here.

A. Right.

Q. Now, Dr. Borts, if you turn to page 18 and in this connection you are dealing with a hypothesis, the possibility of car miles being a more appropriate unit than GTM?

A. Yes, that is right.

Q. And you made the calculation that you say that by using car miles instead of gross ton miles -- this is on page 19, I think.

A. 18.

Q. Page 20 you say this may mean that your study is somewhat conservative and that there may be an amount of some $1 billion 300 million dollars odd involved.

A. That is correct.

Q. Now, I suggest to you that your calculation is based on the table at the top of page 19, track maintenance and depreciation and 17 out of 47, let us say 45% is based on your equation 202A.

A. No, I believe that track maintenance figure is shown -- that 17 figure -- yes, that is exhibit No. 63R. Is that a CPR exhibit?

MR. MAURO: CPR exhibit.

MR. SINCLAIR: Q. I do not know.

A. My key to it is a CPR exhibit which means it is your own equation including superintendents and other additives that were put into it.

Q. Where did you get the investment in work equipment?

A. In exhibit 66R.

Q. And investment in road property?

A. Exhibit 66R.

Q. 63R is maintenance and 66C the other two?

A. That is right.

Q. So what you have done for the purpose of this calculation ---

A. Is to use your own figures.

Q. Is to use our own figures notwithstanding that earlier on you said the CP figures would ascribe

a higher and proper charge to grain.

A. What we want to do was stay within the framework of your own study, assuming but not conceding what the figures were. I think that is a permissible procedure.

Q. And in excepting the car miles, again -- I think we covered this in dealing with other points -- you would not take into account the weight of the traffic in the car.

A. That is right.

Q. And you would not take into account the speed?

A. No one takes into account speed. There are no figures on speed which are in your data.

Q. I suggest to you that the weighting of two to one in gross ton miles is a speed reflection.

A. It is a speed weighting. There is a question that was raised in the cost conference as to whether it was appropriate.

Q. But yours has none, your car miles have none.

A. I am not sure of that because after all, if you have a passenger car mile and add it to the freight car mile the mere statement that they are equivalent in the terms of their effects on cost reflects implicit speed weight.

Q. Did you know that the fastest train on the Canadian Pacific is a freight train and not a passenger train?

A. I didn't realize that, but we are talking about averages over the whole traffic.

Q. What you are saying is that car miles does not give effect as well as weighting in gross ton-miles to speed factors, although what you are suggesting ---

A. No; what I am saying is, in lumping together passenger and freight, whether at one to one or two to one or five to one, has an implicit speed weighting in it.

Q. That you have got in weighting of car miles?

A. Not other than simply adding one passenger car mile to one freight car mile.

Q. If there is any significant weighting in doing that?

A. Assuming you have your 32 tons average load on your freight car miles; I don't know what the average load on a passenger car mile is, but it could not be anywhere near that, but there is automatically a speed weighting given by adding a car mile of one to a car mile of the other.

Q. That is your view?

A. Yes.

Q. Dr. Borts, if you had used car miles instead of gross ton-miles in your equations as

explanatory, would the results have statistical significance and give an R^2 variance you would have accepted? Did you test them?

A. No, sir; the only test I ran is included in a memorandum which I wrote to the Commission at the termination of the cost conference, which you have in your possession, which I would like to refer to and in which I answered the question about the relationship between car miles and gross ton-miles on the Canadian Pacific Railway. On the whole system the correlation between car miles and gross ton-miles is .994. It is .996 in the west, and .989 in the east. It was on those grounds I felt that the substitution of one for the other would lead to equally significant results.

Q. If you use car miles as a correlation with respect to investment, this assumes that, for instance, the actual weight moving over a given section of track does not affect the investment in it?

A. Weight per car?

Q. The weight per car.

A. That is correct. Or, let me put it another way, if I may reinterpret your statement: it assumes that the weight per car is not reflected in any difference in gross ton-miles, which is amply borne out by the data.

Q. I suggest to you gross ton-miles does reflect weight per car?

A. If it does I would like to see the evidence,

because the correlation data I have cited to you would seem to indicate the contrary of that.

Q. What I am suggesting to you here again is that the K test is helpful.

MR. MAURO: Were any of the K tests provided to the cost conference?

MR. SINCLAIR: I wonder if my friend would mind sitting down.

MR. MAURO: Oh yes, I would, and I would expect the courtesy of my learned friend when I stand to place something before this Commission, because this Commission had great faith in the cost conference, and if they have these meaningful figures, the place to put this material and all the K tests was before the Commission staff and our experts, Saunders, Williams, Banks and Borts.

THE WITNESS: I think the K test means there are no figures.

MR. MAURO: Well, obviously.

MR. SINCLAIR: Thank you, Dr. Borts; I think that successfully answers it.

MR. MAURO: Let us hear about the correlation figures and the K tests.

MR. SINCLAIR: I think the witness has properly answered it.

MR. MAURO: He certainly has, and he has answered you too.

MR. SINCLAIR: Q. Dr. Borts, would you mind looking at Page 41: do you see there where you make

reference to account 202, and that was before you knew that the regression of Canadian Pacific was on 31 divisions?

A. Oh yes; thank you for that. Is there an error on Page 43 also -- no.

Q. I would suggest, now I have brought that to your attention that would mean you would not be able to use the examples set out on 41 and 42.

A. No, I don't think it changes anything else, sir.

Q. Well, I would suggest to you this, that what the Canadian Pacific was saying in the manner you interpreted it, and the way you did, because you were under the impression that 27 ---

A. Let me make one point clear: there are many equations where you did not use 31 divisions: for example, your station employees.

Q. Well, if you will listen until I finish the question, this is what I am saying: you have used as your example track maintenance.

A. Yes.

Q. I am suggesting to you what Canadian Pacific was saying to you -- and maybe this is going to help clear up this misunderstanding -- what they were saying in the evidence was that while they made an adjustment with respect to terminal divisions, the largest of which would be involved in station employees -- nothing to do with traffic -- that because of the way Canadian Pacific necessarily is operated

with a large headquarters in the Montreal terminal division and a large headquarters in the western division, that there is no adjustment factor that can be made to change and run through from a 27 to a 31 base and pick up for the constant the distinction of those two large impacts of station employees?

A. You raise a very interesting question in view of the fact the data you sent down to us indicated that there were no station employees even recorded for those four terminal divisions, and yet when we tried to reconcile the total in the 27 divisions we found there was something like $30 million missing.

Q. $15 million, I think.

A. Well -- on a three year basis. So, I understand the need for the reconciliation. If this was the only purpose for that change of procedure you would have my heartfelt sympathy at having overlooked it initially.

Q. I will say to you, Dr. Borts, this: assume with me that your variable costs freight and your variable costs passenger are properly determined, and you subtract these from railway expenses; the remainder is what we have been terming here "Unexplained cost", or what we have been grouping in constant.

A. Yes.

Q. Even though we have in that group items such as we have discussed today which we know in part are variable: for instance, snow.

A. Snow.

MR. SINCLAIR: Thank you, Dr. Borts. I appreciate very much having had this opportunity of discussing your paper with you, and I thank the Commission for giving me the opportunity.

THE CHAIRMAN: Mr. McDonald?

MR. McDONALD: Mr. Chairman, there is one item which Mr. Sinclair has not touched on and that is, The Effects of Multiple Car Cuts on Classification Switching Costs, starting at Page 20 of the memorandum and continuing on. The Winnipeg yard of the Canadian National is referred to there and I would point out to the Commission that the position of the Canadian National was outlined by Mr. Bandeen in his evidence in Volume 75 at Pages 13180 to 13186. Rather than get into an involved cross-examination here, if we consider it necessary to supplement that, or bring Mr. Bandeen back for rebuttal, we will do that in January, to shorten it up.

Mr. Sinclair has covered the whole field. I had a number of questions, but they are all covered, and I want to say to Dr. Borts he has made an excellent witness, been very responsive, and I have enjoyed hearing his testimony, and I have no questions of him.

MR. MAURO: I don't think any re-examination is necessary, Mr. Chairman. Perhaps Dr. Borts may be excused, with the permission of the Commission.

THE CHAIRMAN: Thank you very much, Dr. Borts.

THE WITNESS: Thank you very much.

THE CHAIRMAN: I think you will be glad to get away today. That being the last witness now, there will be adjournment of the Commission until January the 4th 1961, in this room at 10 a.m.

---Adjournment.